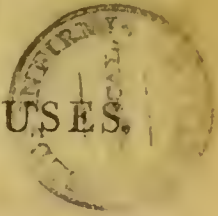


165

AN
EXPLANATION
OF THE
CAUSES
WHY
VACCINATION
HAS SOMETIMES FAILED TO PREVENT
SMALL-POX:

AND ALSO
A DESCRIPTION OF A METHOD
CONFIRMED BY EXPERIENCE,
OF
OBVIATING SUCH CAUSES.



~~~~~  
BY EDWARD LEESE,

OF THE ROYAL COLLEGE OF SURGEONS, ONE OF THE COUNSEL OF THE  
MEDICAL SOCIETY OF LONDON, AND INOCULATOR AT THE MARY-LE-BONE  
STATION OF THE NATIONAL VACCINE ESTABLISHMENT.

“The College of Physicians feel it their duty strongly to recommend the practice of Vaccination, they have been led to this conclusion by no preconceived opinion, but by the most unbiassed judgment, formed from an irresistible weight of evidence which has been laid before them.”

*Report of the Royal College of Physicians on  
Vaccination, by Command of His Majesty.*

Veritas prevalebit.

~~~~~  
LONDON:

Printed by Law and Gilbert, St. John's Square, Clerkenwell;
FOR THOMAS UNDERWOOD, 40, WEST-SMITHFIELD.

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1812.

*Price 2s. 6d.*

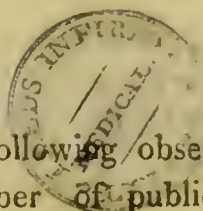


THE *Mary-le-bone Station* of the NATIONAL VACCINE ESTABLISHMENT is removed from *Duke-street*, to No. 42, *Baker-street, Portman-square*; where all persons applying on *Mondays, Wednesdays, and Fridays*, between ten and eleven o'clock, may be inoculated gratis; and where Medical Practitioners may also be supplied with proper matter free of expence.



AN

## EXPLANATION, &c.



THE following observations would not have been added to the number of publications on a subject of so much importance to mankind, as that of vaccination is universally admitted to be, but that in the prevalence of vaccine inoculation, and the light and inattentive manner in which it has sometimes been practised, some unsuccessful cases have occurred, these cases however, are no farther remarkable in themselves, than as they have afforded occasion for determining the opinions of some medical practitioners, against the adoption of a practice which every well-poised mind, estimating good and evil upon general principles, must allow to have been of the utmost benefit to Society. To those who are yet wavering, I would *in limine* of these remarks, request of them in a spirit of moderation and candour, to compare the mortality of the two diseases induced by variolous inoculation and by vaccination; their conveniences and inconveniences; the contagiousness of one and the non-contagiousness of the other; and then say on which side of the account the advantage lies: if the answer shall (as in truth it must) be most decidedly in favour of vaccination; it may next

be enquired wherefore it has occurred that the practice has not become so universal as entirely to supersede that of variolous inoculation. In pursuing this enquiry, one ground of objection will be particularly alluded to, and a method of obviating it will at the same time be pointed out and recommended for general adoption.

It is admitted that hitherto no certain test has been discovered, or at least that not one has been generally or extensively adopted, by which it may be determined *à priori*, whether the vaccination has acted constitutionally, or only locally—or in other words, whether it has been perfect and complete; and to be depended upon as security from small-pox, or not. Vaccination wanted only such a test to complete its manifold advantages, and enable it to triumph over the wit, the malignity, the ignorance, or the perverseness, with which it has been assailed.

I have no other motive for publicity in this way, but the incitement which duty and a conviction of utility prompt me to obey; and if I shall be instrumental in diffusing the knowledge, and procuring the adoption of a practice, that shall disarm the small and retiring band of enemies of vaccination, of the only weapon that yet remained to them to wield, I shall be satisfied; and my satisfaction will be heightened by the reflection that the mode to be recommended for adoption will lastingly benefit mankind.

For the information of those who may not have had time, or opportunity of turning over the multitude of publications, which the subject of inoculation has originated, I shall mention a few circumstances relative to the first introduction of inoculation for small-pox; it will thence be made to appear that a practice now, or lately so general in Europe, and in almost every part of the world; was exclaimed against as vehemently and upon much



the same grounds, as those which have been adopted in relation to vaccination.

Until the return of Lady Mary Wortley Montague from Constantinople, whither she had accompanied her husband, who was the English Ambassador at the Ottoman Court, the practice was but obscurely known in this country, although it had immemorially I believe, prevailed in many of the Turkish provinces. The daughter of this celebrated Lady was in April, 1721, inoculated by Mr. Maitland, an eminent Surgeon then resident in London, with small-pox matter; in August following, Government permitted small-pox inoculation to be tried on six condemned criminals, to whom a submission to this experiment, or death as the alternative was proposed. The men survived, they experienced the disease favourably, and thus, usefully atoned, for the injuries they had by their crimes, inflicted on the community.

In April, 1722, two of the then Royal Family underwent the inoculated disease, and from this period, the practice of inoculation yearly increased, and for the last fifty years of the eighteenth century, few parents were to be found who had not consented to adopt this method of securing their offspring from the destructive violence of the natural infection of small-pox.

The evidence of mens senses silenced clamour, and experience gradually diminished opposition; hostility subsided into passive acquiescence; prophesied evil remained unaccomplished; and as the prophets themselves sunk into contempt and oblivion, the practice of inoculation arose amongst its opponents and became almost universally adopted.

Dr. Wagstaff a Physician of St. Bartholomew's Hospital, Dr. De Haen of Vienna, and the Rev. Edm. Massey, M. A. took

each of them a very decided part in opposition to this practice. Divinity and Physic in the persons of these respectable men, who wrote and preached the opinions of others in their respective professions, were arrayed against this new practice ; they contended that it was dangerous, that it did not afford security from future infection ; that the practice was sinful, and opposed the dispensations of Providence. To these objections which the ebullition of religious zeal had dictated, the Physician added temporal and immediate maladies of the most revolting character : scrophula and a host of formidable disorders were marshalled in hostile array in pamphlets and other publications of that day. Amidst the outcry that deafened, though it did not overwhelm science, philosophy or true humanity, it was also objected that inoculation operated as a preservative of contagion in constant activity ; that its ravages, instead of being casual, and in some districts seldom if ever prevalent, were by means of inoculation diffused in every possible direction.

Of all that imagination had embodied and put forth against the practice, this last objection only remained in full force ; and the bills of mortality proclaim the dreadful truth, that the means of preservation became the keenest weapon of destruction ; variolous contagion thence became more generally diffused ; every inoculated subject in attempting his own preservation propagated the disease, and, though himself escaped, spread death as from a centre around him : thus the general mortality became greater than at any period previously to the introduction of variolous inoculation ; this painful truth, with the total absence of infection in cow-pox, forms therefore an argument doubly powerful in favour of vaccination.

With the melancholy fact just mentioned before his eyes, Dr. Jenner commenced and slowly, but surely matured, his experiments on the matter secreted by the cow. Tradition had



reported, and his numerous and most cautious experiments, confirmed its preventive quality against small-pox contagion. In 1798, an æra in which British humanity and science is immortalized in his person, Dr. Jenner published his discovery to the World.

Wherever the rays of Science have penetrated, wherever Philanthropy has a seat, the name of Jenner has been re-echoed; and to the voice of the learned, the wise and the humane; has been added that of the millions before whom he has thrown a protecting shield, from one of the most prevalent, one of the most loathsome and destructive of all diseases. Until humanity shall with science be banished the earth, Jenner's philanthropy must be gratefully remembered and revered.

But to return to the more immediate object of this publication,—the mildness and efficacy of vaccination. As every new doctrine or new practice meets with opposition as a matter of course, so did this of Jenner; some neglecting to examine for themselves depended on analogical reasoning; some listened and gave credence to the stories of the ignorant or interested; others from the influence of no commendable passions, attacked both the practitioners and the practice: but as neither personal abuse or invective, ignorance or self-interest, are admissible arguments in a matter of science and philanthropy, I shall beg to recommend persons who upon mere reasoning reject vaccination, that they suspend their arguments until they shall have personally tried what they now condemn from want of practical information: let each of them vaccinate a hundred patients, let them try to give these the small-pox afterwards, and let them also compare the health of these with an equal number of such as have had small-pox: when this has been done with calmness and accuracy, with a mind divested of prejudice or pre-conceived opinion, and provided the conduct of men is to

be regulated by truth, candour and common sense, I am convinced that the advantages of vaccination will appear so conspicuous, that hostility must cease. It is remarkable enough in the evidence produced before the House of Commons, that those who testified against vaccination, admitted they had not tried it themselves, but that they had heard much against it. In the infancy of vaccination arguments drawn from analogy might have had some weight, and practitioners were warranted in using some caution in adopting a new proposition; and the more especially as so many erroneous ones are daily offered to the public; but reasoning drawn from such sources will not now apply to vaccination; neither does it require the support of argument or analogy; it is established on a basis far more firm than these united,—that of experience: it is founded not on a single or a small number of instances, that all or in part might have been fallacious,—but on millions: neither is it confined to the experience of one or a few practitioners, nor limited to one country or climate; but has been practised by thousands, on myriads of subjects, in every part of the habitable globe: and all who have put it fairly on trial have found reason to approve, from the facts which they have witnessed. Indeed a long continued series of successful vaccination has now almost put a stop to anti-vaccine publications; and what opposition there is, is on the part of the very lowest of the community.

A letter to the Honourable Richard Ryder is indeed rather a late publication, its author holds an appointment under the Honourable East India Company. The pamphlet has not escaped the attention of the Directors, and it surely must have excited their surprize, that a publication from the pen of one of their own officers, should be so wanting in science or fair argument, and which in such indecorous language opposes the benevolent institutions, the Honourable Company have founded.

throughout their immense dominions; institutions to which millions already owe their lives, and their exemption from small pox. In Madras alone more than a million persons have been vaccinated with success. The practical experience of Dr. Scott, Mr. Shoolbred, Mr. Christie, &c. the different superintendants general of vaccination, in the different presidencies, will better satisfy the Court of Directors, and the public, than the gratuitous assertions, and hypothetical arguments of the Letter alluded to.

What the East India Directors have accomplished on a most extensive scale, other bodies have effected on a smaller. When the late Dr. Rowley published his account of supposed failures, and indecently mingled in a great and grave controversy, absurd fables of ox-faces, &c. which he affirmed arose in consequence of vaccination, he availed himself also of his situation of physician to the St. Mary-le-bone Infirmary, and attempted to suppress vaccination there; but a meeting of the Guardians of the Poor was immediately called, and the Doctor's directions were countermanded: these gentlemen from public motives sometime after published and distributed numerous copies of the following paper.

*To the Inhabitants of the Parish of St. Mary-le-Bone.*

The Directors and Guardians of the Poor of this Parish most earnestly recommend the following important facts to their consideration:

|                                                                                           |      |
|-------------------------------------------------------------------------------------------|------|
| The number of deaths by the small-pox in London in the year 1802 was .....                | 1811 |
| By means of vaccination that number was in 1804 reduced to .....                          | 622  |
| In consequence of prejudices raised against vaccination, the number in 1805 rose to ..... | 1685 |



It appears by the Report of the College of Physicians that one tenth part or more, of the whole mortality of London, is occasioned by the small-pox, and that the contagion is constantly increased by the practice of inoculation.

Vaccination is proved to be so effectual a preservative against the small-pox, that if once generally adopted, there is reason to believe that the

### SMALL-POX

in this country would become as rare as the plague.

The operation will be performed, gratis, at the Workhouse, and any expence attending vaccination will be defrayed by the parish, if required.

N. B. The Trustees of the Charity School have come to a resolution, that in future no child shall be admitted, unless such child has had the small-pox, or been vaccinated.

Mr. Leesc, No. 21, Duke-street, Manchester-square, performs vaccination gratis.

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Other public bodies have also encouraged vaccination, and discouraged the baneful practice of small-pox inoculation, " In the Royal Military Asylum for the children of soldiers, where between eleven and twelve hundred children are now received, vaccination has been practised from the commencement of the establishment in 1803, from that period to the present time, but one instance of death from small-pox has occurred, and it is worthy of remark that the individual who suffered, had not undergone vaccination in consequence of the declaration of the mother that the child had passed through small-pox in its infancy."

Vaccination was introduced into the Foundling Hospital in 1801, and every infant soon after admission has since that

period been vaccinated, from the commencement of this practice to the present time, no death has occurred from small-pox, and in no instance has the preventive power of vaccination been discredited, although many children as a test of its efficacy, have been repeatedly inoculated with the matter of small-pox, and exposed to the influence of its contagion."

To the publications, and praiseworthy exertions of James Moore, Esq. Director of the National Vaccine Establishment, the public is largely indebted, for the promotion of vaccination, and the discontinuance of small-pox inoculation at different Dispensaries, by which means the variolous contagion is much diminished.

I will not imitate the example that has been set me by some of the opposite side of the question, and write in opprobrious terms; nor will I rail on a subject that needs not raillery to enforce its truth: but it may be observed, that if there are some few men who still practise small-pox inoculation, it may be useful to enquire wherefore they continue to do so? It is true that small-pox is a never-failing source of emolument, to those who would for personal interest, seek to disseminate disease and wretchedness around them; I dare not suppose that such men exist, but a professional man should be cautious how he lends his art to propagate contagion, and thus actively join without remorse, in adding to the bitter cup humanity is compelled to drain. The medical profession as a body, has however redeemed itself from imputed obloquy, and its noble and disinterested conduct on this occasion, ranks it high on the scale of human desert. No sooner was this great discovery publicly announced, than the British practitioners in general adopted it; not hastily and inconsiderately, but solemnly and advisedly; they repeated the experiment in their own families, and wherever their influence extended they subsequently recommended vaccination; thus meri-



toriously promoting the public welfare, at the expence of their own individual profit.

I am happy to find that surgeons of respectability have in general, for some time past, declined small-pox inoculation; that traffic in mortality is now for the most part, abandoned to persons of a very inferior rank in society. It would appear invidious to designate all the trades and occupations, of these dispensers and venders of contagion; most of them from their general habits as ill calculated to appreciate, as to extend the views of science; or the benefits resulting to mankind from the Jennerian practice: such irregular practitioners are to be found in this parish; and in some other parts of the British Dominions itinerant small-pox inoculators, set up their booths and standing places, at fairs and markets.

It has been proved in evidence before the Honourable House of Commons, that since the introduction of the practice of small-pox inoculation, the number of deaths by that disease has been increased. This has necessarily happened from the contagion having been thus renewed, and kept in constant activity. On recurring to the tables compiled from original and authentic documents, it appears, that the average number of deaths in the forty two years previous to the use of variolous inoculation in 1722, is less than in the forty two years immediately subsequent to that period, (viz. from 1730 to 1772) the mortality of the latter period is greater by seventeen in the thousand. No one can hesitate therefore in desiring that this destructive practice were abolished, or at least that it were regulated and restrained.

The Governors of the Small-pox Hospital have prohibited their officers from inoculating out-patients with small-pox, or distributing the matter; formerly they variolated from three to four thousand patients yearly, these returned to their different

habitations in all parts of the town, and were brought to the Hospital for inspection three times a week : thus no corner of this metropolis remained free from the contagion ; the mortality was of course very great : on the regulation taking place above-mentioned, a decrease in the number of deaths was immediately perceptible.

It is unnecessary to enter into a detail of individual cases of the efficacy and mildness of vaccination ; it having been sufficiently enlarged upon and irrefragably proved, by numerous authors of the highest medical reputation, the publications of Dr. Jenner, the History of Vaccination, by the learned and indefatigable Mr. Ring, &c. will afford all needful circumstantial information.

Convinced of the magnitude of the discovery, as well as of the useful force the efforts of individuals acquire by association ; many enlightened patrons of vaccination in January 1803, formed the Royal Jennerian Society ; His Majesty graciously became its patron, many of the Royal Family, and also many of the Nobility became vice-patrons and governors. Thirteen stations were opened in different parts of the town, for gratuitous vaccination, Dr. Jenner was appointed president of the medical council, which was formed to conduct the business of the Society, and medical correspondence.

Of the well directed efforts of this establishment, it may be useful to mention a few. Circumstances unfavourable to vaccination were said to have occurred at Ringwood in Hampshire ; two members of the Medical Council, Mr. Ring and Mr. Blair, were immediately requested by the Society to make enquiries on the spot ; their report on this occasion was as follows.

*Report of the Royal Jennerian Society, on the supposed Failures of  
Vaccination at Ringwood.*

*Salisbury-square, February 3, 1808.*

The Royal Jennerian Society, deeply impressed with the importance of their pledge to the public, in recommending vaccination as a security against the small-pox, and feeling equally the claim the public have on them to justify this pledge, by offering such information as may remove any reasonable doubt respecting that security, think it their duty to publish an abstract of their proceedings, in consequence of the alarm excited by the supposed failures of vaccination at Ringwood.

Upon information received from the Right Honourable George Rose, M. P. to whom the Society is greatly indebted for his zeal and attention on this interesting occasion, the Society appointed a Medical Deputation, consisting of John Ring, Esq. Vice-President; W. Blair, Esq. Director; and Dr. J. S. Knowles, their resident Inoculator.

These gentlemen, assisted by Dr. Fowler, an eminent physician of Salisbury, who is totally unconnected with this Society, proceeded to Ringwood; where a public meeting was convened at the town-hall, and attended by the Right Honourable George Rose, W. Mills, Esq. M. P.; S. Tuncks, Esq. a magistrate of the town; the Rev. Dr. Taylor, the Rev. Mr. Davies, the Rev. Mr. Middleton; Mr. Westcott and Mr. Macilwain, surgeons of Ringwood; and other principal inhabitants of that town and neighbourhood. In their presence the medical gentlemen, during two whole days, went into a close investigation of these supposed failures of vaccination.

Their Report, which is open to the inspection of any medical man, affords the most consolatory results. These results the Society now lay before the public, to defeat the effects of malignity or



misrepresentation; and to confirm the efficacy and advantage of Dr. Jenner's great discovery, *the Cow-pox Inoculation*, as a safe, mild, and *uncontagious* antidote against that most terrible and *contagious* malady the small-pox.

On the whole, the Medical Deputation are perfectly satisfied, after a minute and careful examination of the numerous cases brought before them, that no instance occurred, during the dreadful visitation at Ringwood, of the small-pox having taken place where the process of vaccination had been complete; and they have the highest satisfaction in offering to the public a confirmation of their own opinion, in the subjoined communications from the two medical practitioners at Ringwood, by whom the majority of the inhabitants were inoculated.

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*General Result of the Inquiry into the unfavourable Reports concerning Vaccination at Ringwood.*

The small-pox appeared at Ringwood about the middle of September; and rapidly spread through the town and neighbourhood, partly by means of inoculation, and partly by natural infection.

Vaccine inoculation did not commence until the 23d of October; it is therefore evident, that all those persons who were vaccinated had been previously exposed to the contagion of the small-pox.

Some of these persons had the small-pox at the same time with the cow-pox, in consequence of previous infection. In others, vaccine inoculation did not take effect; and consequently they were not rendered insusceptible of the infection of the small-pox.

In various instances, dry cow-pox matter, received from several quarters, was dissolved in water almost boiling, previously to insertion; and it is probable, that on this account it frequently failed to produce any effect. About two hundred persons, however, were

successfully vaccinated; and have been protected from the small-pox, though much exposed to its infection in different ways.

It was asserted, that the small-pox was more fatal at Ringwood and the neighbouring villages, to those persons who were inoculated for the cow-pox, than to others. This report appeared to be totally destitute of foundation. The mortality was indeed considerable, owing in some instances to want of air and cleanliness, and in others to the immoderate use of spirituous liquors, particularly at the time of the eruption, which had been recommended by a thrasher, who inoculates for the small-pox.

It was reported, that several persons at Ringwood, who were inoculated for the cow-pox some years ago, lately had the small-pox: but no satisfactory evidence was given to establish the fact; as it appeared, either that their arms had not been inspected by the inoculator after vaccination, or that there was no proper scar left behind; or on the other hand, when they were put to the test of variolous inoculation, no other effect was produced, than what is occasionally produced in those who have previously had the small-pox.

It was also insidiously reported, that two persons had died of the cow-pox, or as it had been termed, the "vaccine ulcer:" but it is positively asserted by the surgeons who inoculated them, that no vaccine ulcer, nor the cow-pox, took place in either of those instances; and that the patients died of other diseases,—one of them of an apoplexy.

JOHN RING.

WILLIAM BLAIR.

J. S. KNOWLES.

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The preceding Report having been submitted to Dr. Fowler, an answer, dated *Sarum*, *January 31st*, has been received, in which he says, " I perfectly approve of this Report; as it very accu-



rately expresses the opinion which I have formed of the causes of the supposed failures of vaccination at Ringwood." Mr. Rose has likewise permitted the Jennerian Society to add, "that he has seen this Report, and concurs in it, so far as he is able to form a judgment on the subject."

By Order of the General Court,

CHARLES MURRAY, Secretary.

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What follows relating to the Ringwood Report, I copy from a publication of Mr. Ring.

*Extract of a Letter from Mr. Westcott to Mr. Blair, dated Ringwood, January 10, 1808.*

"Mr. Birch must now be convinced, by my answer to his letter, that his statement is *directly wrong*, respecting the failures of vaccination at Ringwood; and you are at perfect liberty to make use of my name, in any manner you may think proper, to convince the world that Mr. Birch has asserted a falsehood."

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*Copy of a Letter from Mr. Westcott to Mr. Ring, dated Ringwood, Jan. 15, 1808.*

Dear Sir,

I am of opinion, that not one person in Ringwood, or its neighbourhood, caught or had the small-pox, after going through regular and complete vaccination.

I remain, dear Sir,

Your obedient servant,

W. WESTCOTT.

P. S. Your's would have been answered sooner, but I could not see Mr. Macilwain till last evening. He says, these are exactly his sentiments.

*Copy of a Letter from Mr. Macilwain to Mr. Ring, dated Ringwood. Jan. 25, 1808.*

Dear Sir,

In answer to your Letter, which was dated 21st instant, but which I only received on Saturday, the 23d; I have to inform you that the resolution which appeared in the Salisbury and London papers, respecting the vaccination here, contained my sentiments; and that I have no reason to alter my opinion at present. The advertisement I allude to is the following:—

“ After a most careful and minute investigation of those cases in which small-pox occurred subsequently to inoculation for the cow-pox, it appeared that such inoculation had not taken effect; or that when an effect had been produced, the progress of vaccination was interrupted, so as to render the patients insecure.

“ The result cannot fail to be highly interesting to the inhabitants of Ringwood, and of the neighbouring parishes; inasmuch as it must remove the feeling of alarm which had been excited, and restore and confirm the confidence of the public, in a practice affording protection against a pestilential disease, justly esteemed the scourge of the human race.

“ The investigation was made in the presence of some of the most respectable Gentlemen of the town and neighbourhood by Dr. Fowler, of Salisbury, and a deputation of three members of the Royal Jennerian Society of London.

I proposed to *re-vaccinate* many persons with the matter you were so kind to give me, but I only used it in two instances, IN BOTH OF WHICH IT SUCCEEDED.

I cannot say more to you on the subject of vaccination, than I did when you were at Ringwood. I consider it as an inestimable

blessing; and solemnly and seriously am of opinion, that it is a preventive and effectual preservative against the small-pox, when carefully conducted; and if the people of Ringwood had allowed themselves to have been fairly and honestly informed of its merits, the lives of many would have been saved, and the malicious intentions of some persons in this quarter, to stigmatize the Jennerian system, would have been defeated.

The enemies of vaccination did all they could to propagate the small-pox among those who were desirous of the cow-pox; and the people were much too incautious, to give the new inoculation any thing like a fair chance.

If any thing worth communication should occur, I shall very gladly avail myself of your desire to hear from me. In the mean time,

I am, dear Sir,

Your most obedient servant,

G. MACILWAIN.

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Other unfavourable cases were reported from Cambridge, but these, like those at Ringwood, were ascertained by enquiry, to be slenderly founded. The Report of the Gentlemen who formed that deputation is subjoined.

*Salisbury-square, August 19, 1808.*

The Royal Jennerian Society for the Extermination of the Small-Pox having received information, that considerable alarm had been excited by reports of supposed failures in vaccination at Cambridge, requested the favour of Mr. Ring and Mr. Blair to proceed thither immediately, for the purpose of investigating those reports. In this request of the Society the above Gentlemen readily acquiesced; and they have since laid before the Board of

Directors a particular statement, of which the following is a general Abstract:—

*General Result of an Inquiry into the unfavourable Reports concerning Vaccination at Cambridge, by the Deputation of the Royal Jennerian Society, August 5th, 1808.*

The small-pox has been very prevalent and very fatal at Cambridge for ten weeks past; during which period a considerable number of children, vaccinated at different times, have been much exposed to the infection of that disorder, which they have perfectly resisted.

In many instances, however, the small-pox was supposed to have occurred after vaccination; in some of which all doubts had been removed: but sixteen cases were deemed still deserving of investigation.

These cases may be divided into two classes: one, containing those in which there was no regular and complete vaccination; the other, those where the patients have not had the small-pox.

In some instances, vaccination did not take place in a satisfactory manner; yet these were reckoned among the failures in vaccination, by persons who were prejudiced against the practice.

In several examples there was only a festering of the arm; or the pock was essentially injured, and the security of the patient thereby diminished. In others, which fell under the observation of two respectable practitioners at Cambridge, and of the deputation who accompanied them, the chicken-pox was mistaken for the small-pox. In confirmation of this remark, it is necessary to state that the chicken-pox, as well as the small-pox, has for some time been, and still is, very prevalent at Cambridge.



In two cases, the patients were inoculated for the *small-pox* in the manner of a *seton*, “ by a bone-setter, who was formerly a grocer,” together with two of his own children; and a festering of the arms was produced. About a month ago, when the *small-pox* appeared in these four cases, and proved fatal in one of them, he was applied to; then, and not till then, he pretended that he had not inoculated the children for the *small-pox*, but for the *cow-pox*!

When a child was inoculated for the *cow-pox* without effect, and afterwards successfully inoculated for the *small-pox*, this was represented to be *a failure in vaccination!* and when another child, who had been vaccinated, was afterwards seized with a fever *without eruptions*, this also was represented to be *a failure in vaccination!*—Having such prejudices to encounter, it is no wonder that the failures in this practice at Cambridge were supposed to be frequent; but, after a minute and careful inquiry into the circumstances which had excited so general an alarm, it did not appear that a single case of the *small-pox* occurred there, after regular and complete vaccination.

In this inquiry the deputation of the Royal Jennerian Society were assisted by two eminent surgeons at Cambridge, who have had a considerable share in the practice of vaccination, one of them having vaccinated **THREE THOUSAND PERSONS:** and the notes of every case, submitted to their investigation, were read to the parents themselves, or the parties concerned, to prevent the possibility of mistake.

JOHN RING.

WILLIAM BLAIR.

A particular statement of the cases of supposed failure, here alluded to, and the original minutes on which that statement is founded, may be inspected by any medical man, on application



to Dr. Knowles, Resident Inoculator of the Society, at their Central House, No. 14, Salisbury-square.

By Order of the Board of Directors,

CHARLES MURRAY, Secretary.

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Rumour had again been employed in perverting and exaggerating occurrences in the vicinity of Fulham and Putney.—Mr. Addington and myself were desired by the Council to investigate the state of vaccination in the neighbourhood of those places, and the following Report was submitted to the Society as the result of such investigation :—

*Result of an Investigation of some alledged Cases of Small-Pox after Vaccination in Putney, and its Neighbourhood; undertaken at the Request of the Board of Directors of the Royal Jennerian Society for the Extermination of the Small-Pox, by Mr. ADDINGTON and Mr. EDWARD LEESE, on Friday, the 4th of November, 1808.—Published by Order of the Board of Directors, 24th. of November, 1808. CHARLES MURRAY, Secretary.*

This investigation was conducted in the presence of the Rev. John Owen, of Fulham; and with the assistance of Messrs. Swift \*, Edwards, and Shillito, surgeons in Putney.

The total number of cases presented in answer to the most diligent inquiry was six; but the investigation of these brought us acquainted with eleven other instances in the same families, in which vaccination had afforded the usual security beyond the possibility of doubt or question. The following is an Abstract of the Notes which were taken on the spot, as nearly as possible, in the language of the reporters; a copy of which notes has been

\* Mr. Smith attended the examination of the first case only.

presented to the Directors, and left for inspection at the Central House of the Society in Salisbury-square.

1. The first case, and that on which the principal stress was laid, was that of

ELIZA TEMPLE, vaccinated five years ago. The vaccination evidently imperfect; as shewn by a very small irregular vesicle, without areola, which at an early period passed into a state of suppuration, and succeeding ulceration, continuing several weeks. The child was now under small-pox, which was also imperfect, as the pustules, though small and extremely numerous, tending to confluence, and of a kind which, in the ordinary circumstances, would have been attended with considerable danger, turned suddenly on the eighth day, without secondary fever, or further illness. It was on the sixth day that we visited this case; and we then ventured to predict the sudden vanishing of the disease, after the eruptive stage. The child was seen again by Mr. Leese on the eleventh day, the precise period when, in ordinary small-pox, the symptoms would have been at the highest, and the danger imminent; but when, on the contrary, she was quite well, and the pustules completely dried.

2. MARY TERRY, vaccinated six years ago. No other description of the process could be obtained than that of the mother; in which, however, we observed no material deviation from the common appearances. The effect was only partial. The small-pox recently shewed itself in the usual symptoms, followed by an eruption of about two hundred pimples which never matured at all, and died away on the fifth or sixth day.

N. B. Two other children in this family had remained secure after vaccination, though equally exposed with Mary.

3. GEORGE WILLIAM BROWNJOHN, vaccinated four years ago. The progress manifestly premature, and inefficient, having been

completed in little more than half the usual time. Small-pox, by inoculation, regular; but distinct and mild. Sloughing and ulceration, however, took place in the arm, and continued many weeks.

4. WILLIAM PANTLING, vaccinated about six years ago. No apparent irregularity by the mother's account. Small-pox of the same kind as in No. 2. Many small pimples, a few of which matured at their points, and the whole died away by the fifth day.

N. B. Four other children protected by vaccination in the midst of the most active contagion of the small-pox.

5. JOHN FISK, vaccinated six years ago, and not seen by the surgeon after the first week. The effect quite superficial, *not having left the usual cicatrices*. Small-pox, as might have been expected, in the common way, but distinct and mild.

N. B. Two brothers secured by vaccination, which, in them, *had left the usual marks*. The father of these children died of small-pox on the fourteenth day. He had been vaccinated with the rest, but the operation took no effect whatever: and, unhappily, was not repeated. The children were all equally exposed to contagion from their father.

6. MARY SORREL, vaccinated five years ago. The effect was considered to be as usual in its progress and termination, leaving the proper cicatrix. Variolous inoculation was lately employed as a test of security. It produced great local affection proceeding to suppuration, and subsequent ulceration of the skin; also three or four small pimples near the inoculated part, none of which matured.

N. B. The test was at the same time applied to four others of the family, with little or no effect.



In all the foregoing cases it will be remarked, that the history of the vaccination was obscure and defective. As no evidence from medical practitioners was to be obtained, nor any records or registers of the cases had been preserved; neither the source nor state of the matter employed, nor the character nor progress of its effects, could be distinctly ascertained. The recollections of persons quite unaccustomed to make these observations, and these recollections extending several years backward, were almost the only sources of information on this part of the subject. Yet from these accounts, it is perfectly clear, that in three instances out of the six, (viz. No. 1, 3, and 5,) the vaccination was such as could not authorize any one to expect perfect security from it. In one case, (No. 6,) the effect of the variolous inoculation was such as would probably ensue in many persons, were they to be subjected to a similar experiment, after having had the small-pox itself. The remaining two cases (Nos. 2 and 4,) are the only ones in which any failure could be fairly attributed to the cow-pox, even if its proper characters could have been ascertained, which was by no means the case. These must be allowed to resemble the instances in which vaccination, though not manifestly incorrect, has had only a partial effect on the constitution; and has therefore been followed by small-pox, in that very mitigated form and degree in which it is divested of its formidable aspect, and serious danger.

Rumour, as usual, had greatly multiplied the instances of supposed failures; and prejudice and misrepresentation had availed themselves of the statement, to spread an alarm in the neighbourhood;—but the above cited cases are all that we could obtain any information of; and we conclude that persons who judge of them with precision and impartiality, will see that they do not afford any valid objections to a practice which we understand has long been carried on, in that vicinity, with general success and satisfaction.

It appears that the small-pox had been introduced into Putney

by a child from Wandsworth in August last, and prevailed to the present time; having been propagated partly by casual infection, and partly by inoculation.

(Signed)

J. ADDINGTON.

E. LEESE.

It may be observed of the Medical Council that part of its number retired by rotation yearly, and other members were elected; at this period it consisted of the following physicians and surgeons.

PRESIDENT.

Edward Jenner, M. D.

Edward Ford

Joseph Fox

VICE-PRESIDENTS.

J. C. Lettsome, M. D.

W. M. Fraser, M. D.

William Gaitskell

John Ring

William Hamilton, M. D.

COUNCIL.

Joseph Adams, M. D.

John Hingeston

Lewis Leese

John Addington

Everard Home

C. R. Aikin

Francis Knight

William Babington, M. D.

Thomas Key

Matthew Baillie, M. D.

Edward Leese

William Blair

John Jones

Gilbert Blane, M. D.

I. C. Waschell

Isaac Buxton, M. D.

John Pearson

William Chamberlaine

George Rees, M. D.

John Clark, M. D.

John Gibbs Ridout

Astley Cooper

J. Squire, M. D.

W. D. Cordell

James Upton

Richard Croft, M. D.

J. Walshman, M. D.

Thomas Denman, M. D.

Allen Williams

John Dimsdale

Robert Willan, M. D.

Henry Field

William Lister, M. D.



J. Yellowley, M. D.

Joseph Hurlock

Robert Hooper, M. D.

William Lewis

Alexander Marcet, M. D.

Joseph Hart Myers, M. D.

James Parkinson

Thomas Patherus

Other committees were appointed to obtain information relative to the great object of the Society in and about the metropolis also, and the result of the Reports made by them were alike favourable to the general question of vaccination, but in a process then quite new to science, and in the very infancy of its progress, it would have been extraordinary indeed, if the practice had at once arrived at perfection; yet not a solitary instance was discovered of small-pox occurring in, much less destroying a patient, who had experienced a regular and perfect vaccination: nor was there the least shadow of reason for supposing that it had produced any new disease. Yet even in the neighbourhood in which I am now writing, "tales of horror" were circulated by those who should have known better, if they could have felt better: these persons inflamed the minds of the ignorant, but not one child was really to be found with horns, hoofs, ox-face, or tail; as these calumniators of this greatest boon of providence were ridiculous enough to predict, and who falsely attributed every complaint that occurred at any time after vaccination, to vaccination, and to that alone: their argument was, *post hoc, ergo propter hoc*, that is, whatever happens after is directly caused by what happened before. This kind of argument is nearly as weak, as the silly stories of ox-faces, &c. their own absurdity is refutation enough. With respect to scrophula, scaldhead, eruptions, &c. happening after vaccination; it is almost unnecessary to observe, that in the ordinary course of human life such occurrences will necessarily take place, and would have done the same in certain subjects, whether they had ever been vaccinated or not; but I most confidently deny that they are produced by vaccination: and of any person endowed with

the faculty of reason, it will only be needful to enquire, what produced such diseases previously to the general practice of vaccination\*? there is no one of adult age who cannot remember that these complaints were but too frequent before the year 1798; the æra when the practice of vaccination burst upon the public consideration: the same causes that produced them before, continue to operate the same effects now.

Parliament was at length awakened to a consideration of the vaccine question. In July 1806 the subject was brought before the Honourable House of Commons, it was moved by the then Chancellor of the Exchequer (now Marquis of Lansdown) "that a humble address be presented to his Majesty, praying that he would be graciously pleased to direct His Royal College of Physicians to enquire into the state of vaccine inoculation in the united kingdom, and to report their opinion as to the progress it has made, and the causes which have prevented its general adoption." The Physicians immediately commenced a correspondence with the respective Colleges of Medicine and Surgery, in London, Edinburgh, and Dublin; who on their part applied for information to each of their own body. These establishments reported their opinions to the Royal College of Physicians in London, who in 1807 laid their report before the House of Commons; a copy of which I shall transcribe; on this occasion a further remuneration of 20,000*l.* was given to Dr. Jenner, in addition to 10,000*l.* voted to this great benefactor of the human race.

\* The Reports of the London General Dispensary for some years before and since vaccination has been generally adopted, prove also that eruptive diseases are not more frequent than formerly.

*Report of the Royal College of Physicians on Vaccination.*

The Royal College of Physicians of London, having received his Majesty's Commands, in compliance with an Address from the House of Commons, "to inquire into the state of vaccine inoculation in the united kingdom, to report their opinion and observations upon that practice, upon the evidence which has been adduced in its support, and upon the causes which have hitherto retarded its general adoption;"—have applied themselves diligently to the business referred to them.

Deeply impressed with the importance of an inquiry which equally involves the lives of individuals, and the public prosperity, they have made every exertion to investigate the subject fully and impartially. In aid of the knowledge and experience of members of their own body, they have applied separately to each of the licentiates of the College; they have corresponded with the Colleges of Physicians of Dublin and Edinburgh; with the Colleges of Surgeons of London, Edinburgh, and Dublin: they have called upon the societies established for vaccination, for an account of their practice, to what extent it has been carried on, and what has been the result of their experience; and they have, by public notice, invited individuals to contribute whatever information they had severally collected. They have in consequence been furnished with a mass of evidence communicated with the greatest readiness and candour, which enables them to speak with confidence upon all the principle points referred to them.

1. During eight years which have elapsed since Dr. Jenner made his discovery public, the progress of vaccination has been rapid, not only in all parts of the united kingdom, but in every quarter of the civilized world. In the British islands some hundred thousands have been vaccinated, in our possessions in the East Indies upwards of 800,000, and among the nations of Europe the practice has become general. Professional men have sub-



mitted it to the fairest trials, and the public have, for the most part, received it without prejudice. A few indeed have stood forth the adversaries of vaccination, on the same grounds as their predecessors who opposed the inoculation for the small-pox, falsely led by hypothetical reasoning in the investigation of a subject which must be supported, or rejected, upon facts and observation only. With these few exceptions, the testimony in favour of vaccination has been most strong and satisfactory, and the practice of it, though it has received a check in some quarters, appears still to be upon the increase in most parts of the united kingdom.

II. The College of Physicians, in giving their observations and opinions on the practice of vaccination, think it right to premise, that they advance nothing but what is supported by the multiplied and unequivocal evidence which has been brought before them, and they have not considered any facts as proved but what have been stated from actual observation.

Vaccination appears to be in general perfectly safe; the instances to the contrary being extremely rare. The disease excited by it is slight, and seldom prevents those under it from following their ordinary occupations. It has been communicated with safety to pregnant women, to children during dentition, and in their earliest infancy; in all which respects it possesses material advantages over inoculation for the small-pox; which, though productive of a disease generally mild, yet sometimes occasions alarming symptoms, and is in a few cases fatal.

The security derived from vaccination against the small-pox, if not absolutely perfect, is as nearly so as can perhaps be expected from any human discovery; for amongst several hundred thousand cases, with the results of which the College have been made acquainted, the number of alledged failures has been surprisingly small, so much so, as to form certainly no reasonable objection to the general adoption of vaccination; for it appears that there are not nearly so many failures, in a given number of vaccinated per-



sons, as there are deaths in an equal number of persons inoculated for the small-pox. Nothing can more clearly demonstrate the superiority of vaccination over the inoculation of the small-pox, than this consideration; and it is a most important fact, which has been confirmed in the course of this inquiry, that in almost every case, where the small-pox has succeeded vaccination, whether by inoculation or by casual infection, the disease has varied much from its ordinary course; it has neither been the same in violence, nor in the duration of its symptoms, but has, with very few exceptions, been remarkably mild, as if the small-pox had been deprived, by the previous vaccine disease, of its usual malignity.

The testimonies before the College of Physicians are very decided in declaring, that vaccination does less mischief to the constitution, and less frequently gives rise to other diseases, than the small-pox, either natural or inoculated.

The College feel themselves called upon to state this strongly, because it has been objected to vaccination, that it produces, new, unheard-of, and monstrous diseases. Of such assertions no proofs have been produced, and, after diligent inquiry, the College believe them to have been either the inventions of designing, or the mistakes of ignorant men. In these respects then, in its mildness, its safety, and its consequences; the individual may look for the peculiar advantages of vaccination. The benefits which flow from it to society are infinitely more considerable; it spreads no infection, and can be communicated only by inoculation. It is from a consideration of the pernicious effects of the small-pox, that the real value of vaccination is to be estimated. The natural small-pox has been supposed to destroy a sixth part of all whom it attacks; and that even by inoculation, where that has been general in parishes and towns, about one in 300 has usually died. It is not sufficiently known, or not adverted to, that nearly one-tenth, some years more than one-tenth of the whole mortality in London, is occasioned by the small-pox; and however beneficial the inoculation for the small-pox may have been to individuals, it appears to have

kept up a constant source of contagion, which has been the means of increasing the number of deaths by what is called the natural disease. It cannot be doubted that this mischief has been extended by the inconsiderate manner in which great numbers of persons, even since the introduction of vaccination, are still every year inoculated for the small-pox, and afterwards required to attend two or three times a week at the places of inoculation, through every stage of their illness.

From this, then, the public are to expect the great and uncontroverted superiority of vaccination, that it communicates no casual infection, and, while it is a protection to the individual, it is not prejudicial to the public.

III. The College of Physicians, in reporting their observations and opinions on the evidence adduced in support of vaccination, feel themselves authorised to state that a body of evidence so large, so temperate, and so consistent, was perhaps never before collected upon any medical question. A discovery so novel, and to which there was nothing analogous known in nature, though resting on the experimental observations of the inventor, was at first received with diffidence: it was not, however, difficult for others to repeat his experiments, by which the truth of his observations was confirmed, and the doubts of the cautious were gradually dispelled by extensive experience. At the commencement of the practice, almost all that were vaccinated were afterwards submitted to the inoculation for the small-pox; many underwent this operation a second, and even a third time, and the uniform success of these trials quickly bred confidence in the new discovery. But the evidence of the security derived from vaccination against the small-pox does not rest alone upon those who afterwards underwent variolous inoculation, although amounting to many thousands; for it appears, from numerous observations communicated to the College, that those who have been vaccinated are equally secure against the contagion of epidemic small-pox. Towns indeed, and districts of the country, in which vaccination has been general

have afterwards had the small-pox prevalent on all sides of them without suffering from the contagion. There are also in the evidence a few examples of epidemic small-pox having been subdued by a general vaccination. It will not, therefore, appear extraordinary that many who have communicated their observations should state, that though at first they thought unfavourably of the practice, experience had now removed all their doubts.

It has been already mentioned, that the evidence is not universally favourable, although it is in truth nearly so, for there are a few who entertain sentiments differing widely from those of the great majority of their brethren. The College, therefore, deemed it their duty, in a particular manner, to inquire upon what grounds and evidence the opposers of vaccination rested their opinions. From personal examination, as well as from their writings, they endeavoured to learn the full extent and weight of their objections. They found them without experience in vaccination, *supporting their opinions by hearsay information*, and hypothetical reasoning, and, upon investigating the facts which they advanced, they found them to be either misapprehended or misrepresented; or that they fell under the description of cases of imperfect small-pox, before noticed, and which the College have endeavoured fairly to appreciate.

The practice of vaccination is but of eight years standing, and its promoters, as well as opponents, must keep in mind, that a period so short is too limited to ascertain every point, or to bring the art to that perfection of which it may be capable. The truth of this will readily be admitted by those acquainted with the history of inoculation for the small-pox. Vaccination is now, however, well understood, and its character accurately described. Some deviations from the usual course have occasionally occurred, which the author of the practice has called spurious cow-pox, by which the public has been misled, as if there were a true and a false cow-pox; but it appears, that nothing more was meant, than to express irregularity or difference from that common form and pro-



gress of the vaccine pustule from which its efficacy is inferred. Those who perform vaccination ought therefore to be well instructed, and should have watched with the greatest care the regular progress of the pustule, and learnt the most proper time for taking the matter. There is little doubt that some of the failures are to be imputed to the inexperience of the early vaccinators, and it is not unreasonable to expect that farther observation will yet suggest many improvements that will reduce the number of anomalous cases, and furnish the means of determining with greater precision, when the vaccine disease has been effectually received.

Though the College of Physicians have confined themselves in estimating the evidence to such facts as have occurred in their own country, because the accuracy of them could best be ascertained, they cannot be insensible to the confirmation these receive from the reports of the successful introduction of vaccination, not only into every part of Europe, but throughout the vast continents of Asia and America.

IV. Several causes have had a partial operation in retarding the general adoption of vaccination; some writers have greatly undervalued the security it affords, while others have considered it to be of a temporary nature only; but if any reliance is to be placed on the statements which have been laid before the College, its power of protecting the human body from the small-pox, though not perfect indeed, is abundantly sufficient to recommend it to the prudent and dispassionate, especially as the small-pox, in a few instances where it has subsequently occurred, has been generally mild and transient. The opinion that vaccination affords but a temporary security is supported by no analogy in nature, nor by the facts which have hitherto occurred. Although the experience of vaccine inoculation be only of a few years, yet the same disease, contracted by the milkers of cows, in some districts has been long enough known to ascertain that in them, at least the unsusceptibility of the small-pox contagion does not wear out by time.



Another cause, is the charge against vaccination of producing various new diseases of frightful and monstrous appearance.

Representations of some of these have been exhibited in prints in a way to alarm the feelings of parents, and to infuse dread and apprehension into the minds of the uninformed. Publications with such representations have been widely circulated, and though they originate either in gross ignorance, or wilful misrepresentation, yet have they lessened the confidence of many, particularly of the lower classes, in vaccination; no permanent effects, however, in retarding the progress of vaccination need be apprehended from such causes; for, as soon as the public shall view them coolly and without surprize, they will excite contempt, and not fear.

Though the College of Physicians are of opinion that the progress of vaccination has been retarded in a few places by the above causes, yet they conceive that its general adoption has been prevented by causes far more powerful, and of a nature wholly different. The lower orders of society can hardly be induced to adopt precautions against evils which may be at a distance; nor can it be expected from them, if these precautions are attended with expence. Unless therefore, from the immediate dread of epidemic small-pox, neither vaccination nor inoculation appear at any time to have been general, and when the cause of terror has passed by, the public have relapsed again into a state of indifference and apathy, and the salutary practice has come to a stand. It is not easy to suggest a remedy for an evil so deeply imprinted in human nature. To inform and instruct the public mind may do much, and it will probably be found that the progress of vaccination in different parts of the united kingdom will be in proportion to that instruction. Were encouragement given to vaccination, by offering it to the poorer classes without expence, there is little doubt but it would in time supersede the inoculation for the small-pox, and thereby various sources of variolous infection would be cut off; but till vaccination becomes general, it will be impossible to prevent the constant recurrence of the natural small-pox by means

of those who are inoculated, except it should appear proper to the legislature to adopt, in its wisdom, some measure by which those who still, from terror or prejudice, prefer the small-pox to the vaccine disease, may, in thus consulting the gratification of their own feelings, be prevented from doing mischief to their neighbours.

From the whole of the above considerations, the College of Physicians feel it their duty strongly to recommend the practice of vaccination. They have been led to this conclusion by no preconceived opinion, but by the most unbiassed judgment, formed from an irresistible weight of evidence which has been laid before them. For when the number, the respectability, the disinterestedness, and the extensive experience of its advocates, is compared with the feeble and imperfect testimonies of its few opposers; and when it is considered that many, who were once adverse to vaccination, have been convinced by further trials, and are now to be ranked amongst its warmest supporters, the truth seems to be established as firmly as the nature of such a question admits; so that the College of Physicians conceive that the public may reasonably look forward with some degree of hope to the time when all opposition shall cease, and the general concurrence of mankind shall at length be able to put an end to the ravages at least, if not to the existence, of the small-pox.

LUCAS PEPYS, President.

*Royal College of Physicians,*  
10th April, 1807.

*James Hervey, Register.*

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The College of Physicians could have no interest in recommending vaccination; even were it possible so base a motive could influence the Fellows of this respectable body, it would have a tendency directly to the contrary; their Report was

formed on the strongest evidence of experimental facts, and to a mind unprejudiced might be deemed satisfactory and conclusive.

Pursuant to vote of the House of Commons, the National Vaccine Establishment was formed in 1809, consisting of the President and four Censors of the Royal College of Physicians, the Master and two Governors of the Royal College of Surgeons, for the time being; to which are added a Director and nine Surgeon-inoculators in different parts of the metropolis; the latter of whom vaccinate gratis all persons who apply to them for that purpose; and distribute matter for inoculation free of expence, to all medical applicants: the Board of this Institution acts in conjunction with the Secretary of State for the Home Department. The following was published by them in August 1811.

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*Report of the National Vaccine Establishment.*

The Board of the National Vaccine Establishment having learned that great interest has been excited in the public mind, by the occurrence of small-pox after vaccination, in the families of the Earl of Grosvenor, and of Sir Henry Martin, Bart. have thought it their duty to lay the following cases before the public, accompanied with some observations, and a statement how far, in their opinion, these cases affect the general advantages of vaccination.

The case of the Hon. Robert Grosvenor, third son of the Earl of Grosvenor, was procured through the favor of Sir Henry Hallford and Sir Walter Farquhar, the physicians who attended the young gentleman during his illness; and the case of the son of Sir Henry Martin was obtained through the favor of Dr. Heberden. Both of these cases were also visited by the director of the Vaccine Establishment.



# I. *The Case of the Hon. Robert Grosvenor.*

On Sunday, May 26, 1811, the Hon. Robert Grosvenor, who was recovering from the whooping cough, became much indisposed and threw up his dinner. Fever followed, and he complained most particularly of excruciating pain in his back. He dwelt on this symptom until Thursday, when he became delirious, and there were observed on his face about twenty spots.

He had been vaccinated by Dr. Jenner, in his infancy, about ten years ago, and the mark left in his arm indicated a perfect disease.

On Friday morning the eruption had not increased materially in point of number, but the appearance of the spots and the previous symptoms suggested strongly a suspicion that the disorder was the small-pox.

Sir H. Halford had occasion to go to Windsor in the afternoon of Friday, and did not see Mr. Robert Grosvenor until the Monday following (June 2d), but he learned from Sir W. Farquhar, who attended him most carefully during Sir Henry's absence, (and subsequently) that the eruption had increased prodigiously in the course of Friday; that on the evening of that day Mr. Robert Grosvenor began to make bloody water, and that he continued to do so until Monday morning.

On the tenth day of the disease, the pustules began to dry upon the face, which was swollen to a considerable degree, but not to the extent of closing his eyes, and was attended by a salivation, which lasted several days. Petechiæ had occurred in the interstices of several of the spots, particularly on the limbs, and there was that particular smell from the whole frame which is remarkable in bad cases of confluent small-pox.



It was obvious that the first symptoms of which Mr. Grosvenor complained, were such as indicated a violent disease about to follow, and Sir Henry confesses that he entertained a most unfavourable opinion of the issue of such a malady, when it was fully formed; having never seen an instance of recovery under so heavy an eruption attended by such circumstances. It seemed, however, that the latter stages of the disease were passed through more rapidly in this case than usual, and it may be a quest on whether this extraordinary circumstance, as well as the ultimate recovery of Mr. Grosvenor, were not influenced by previous vaccination.

HENRY HALFORD.

W<sup>R</sup>. FARQUHAR.

In addition to the preceding account, the Board have authority to state, that during the illness of Mr. Grosvenor, the other children of the Earl of Grosvenor, who had been previously vaccinated, were exposed to the contagion of the small-pox under which their brother was suffering, and were also submitted to small-pox inoculation without effect.

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## II. *The Case of the Son of Sir Henry Martin.*

Sir Henry Martin's son, aged eleven years, was vaccinated by Mr. Tegart, in the year 1801, and exhibited all the usual marks of that disorder in a complete and satisfactory manner. He still retains on his arm the characteristic scar.

This boy was taken ill on Saturday the 22d day of June, 1811; at the period of the attack he was recovering from whooping cough.

23d, Continued to be feverish.

24th, Mr. Tegart was sent to,

25th, The fever increased, and at night he became delirious.

26th, An eruption was perceived chiefly about the mouth, at the same time his eyes and throat were slightly inflamed. The fever continued.

27th, or 2d day of the eruption, the pustules increased, so as to afford suspicion of the chicken-pox.

3d day of the eruption, the pustules increased, the fever decreased.

4th. At the close of the fourth day, Dr. Herbeden first saw this boy, with a distinct eruption of the most perfect kind of small-pox, all pretty uniform in size, well filled with a fluid already beginning to grow yellow and surrounded by a rose-coloured margin precisely like small-pox of the fifth day. There were about one hundred pustules on the face, and perhaps twice as many on the limbs, but the trunk was almost free, the features were swollen, but not very much so. The skin was hot and the pulse quick.

5th day. The pustules were more puriform and yellow, and the patient complained of soreness, but he was cooler and his pulse was quieter.

6th. The fever had entirely subsided, and the pock began to turn.

8th. The pustules were dried and continued to fall off from the face. The boy continued quite well.

*Pall Mall,*  
4th July, 1811.

W. HERBERDEN.

With a view of obtaining the most accurate knowledge of the early symptoms of this case which did not come under the immediate observation of Dr. Heberden, the Board have procured through the favour of Mr. Tegart of Pall Mall, an account of the commencement and course of the disorder, which corroborates the above statement. And from the same source they have been informed, that Miss Martin and a nursery maid of Sir H. Martin's family, who had both been vaccinated, were inoculated with matter taken from Master Martin on the fifth day of the eruption, and were exposed to the contagion of the small-pox during the course of his disorder, without effect.

The Board are of opinion, that the case of the Hon. Robert Grosvenor was a case of confluent small-pox. That the attack and progress of the disorder were attended by symptoms which almost invariably announce a fatal termination. But they observe, that the swelling of the face which is generally so excessive as to close the eyes, and is considered as a favourable symptom, was slighter than usual, that on the tenth day the pustules began to dry upon the face, and that from that time the disease passed with unusual rapidity through the period, when life is generally esteemed to be in the greatest hazard.

Those who are acquainted with the nature of the confluent small-pox, are aware that this peculiarity cannot be attributed to the effect of medical treatment.

The case of the Son of Sir Henry Martin exhibits a mild form of distinct small-pox, occurring after vaccination.

In most cases of small-pox which have succeeded to vaccination the pustules have been observed to dry more rapidly, and the disorder has concluded at an earlier period than usual.

If allowance be made for the relative periods in which the confluent and distinct small-pox complete their course, the rapid pro-

gress towards recovery through the latter stage of confluent small-pox, as exhibited in the case of Mr. Grosvenor, may be compared with the rapid desiccation of the pustules in the distinct and peculiarly mild form of the disorder which is considered as small-pox modified by vaccination. Both forms of the disorder proceed in the usual course, the one attended with violent, the other with mild symptoms, till they arrive near to the height, when they appear to receive a check, and the recovery is unusually rapid.

From this correspondence of circumstances, the Board are induced to infer that in the case of Mr. Grosvenor, which has been more violent than any yet submitted to them, the progress of the disease, through its latter stage, and the consequent abatement of symptoms, were influenced by an antivariolous effect, produced upon the constitution by the vaccine process.

The occurrence of small-pox after vaccination, has been foreseen and pointed out in the Report on Vaccination made to Parliament, by the College of Physicians in the year 1807 ; to which the Board are desirous of calling the attention of the public ; wherein it is stated that,

“ The security derived from vaccination against the small-pox, if not absolutely perfect, is as nearly so as can perhaps be expected from any human discovery, for amongst several hundred thousand cases with the results of which, the College have been made acquainted, the number of alledged failures has been surprisingly small, so much so as to form certainly no reasonable objection to the general adoption of vaccination ; for it appears that there are not nearly so many failures in a given number of vaccinated persons, as there are deaths in an equal number of persons inoculated for the small-pox. Nothing can more clearly demonstrate the superiority of vaccination over the inoculation of the small-pox than this consideration ; and it is a most important fact, which has been confirmed in the course of this inquiry, that in almost every



case in which the small-pox has succeeded vaccination, whether by inoculation or by casual infection, the disease has varied much from its ordinary course; it has neither been the same in violence nor in the duration of its symptoms, but has, with very few exceptions, been remarkably mild, as if the small-pox had been deprived by the previous vaccine disease of its usual malignity." Vide Report of College of Physicians, p. 4.

The peculiarities of certain constitutions with regard to eruptive fevers form a curious subject of medical history. Some individuals have been more than once affected with scarlet fever and measles; others have been through life exposed to the contagion of these diseases without effect; many have resisted the inoculation and contagion of small-pox for several years, and have afterwards become susceptible of the disorder, and some have been twice affected with small-pox.

Among such infinite varieties of temperament it will not appear extraordinary, that vaccination, though so generally successful, should sometimes fail of rendering the human constitution unsusceptible of small-pox, especially since it has been found that in several instances small-pox has occurred to individuals over whom the small-pox inoculation had appeared to have produced its full influence. Three instances of this kind have taken place within the last month, and in another instance the natural small-pox has occurred a second time.

These cases the Board now submit to the public as a recent illustration of the foregoing assertion, which has long been maintained and supported by credible evidence.

1. *Case of the Rev. Joshua Rowley.*

The Rev. Joshua Rowley, brother to Sir W. Rowley, when an infant was inoculated by the late Mr. Adair, 1770; the scar left by the inoculation is perfectly visible; his mother the Dowager Lady Rowley, remembers perfectly his having a tolerable sprinkling of small-pox, and says, he was afterwards repeatedly exposed to variolous infection in the nursery, when his three younger brothers were successively inoculated, all of whom had some degree of eruption, and since that time, frequently in performing the clerical duties of his profession.

On Wednesday the 5th of June, he felt much indisposed, complained of pain in his head and back, attended with considerable restlessness and prostration of strength; on Friday the 7th, an eruption appeared chiefly on his face and breast; he was attended by Mr. Woodman, of Bognor, only, till the Monday following, when Mr. Guy, Surgeon of Chichester was first consulted; on examining the eruption, Mr. Guy was immediately struck with its resemblance to the small-pox, and on gently hinting his suspicion to Mr. Rowley, received the information above related. On the following day the progress of the eruption towards maturation, and the swelling of the face, which is characteristic of the small-pox, left no doubt of the nature of the malady. The eruption was perfectly distinct, it was very full all over the trunk and body, and there were about two hundred pustules on the face. Mr. Guy is of opinion, that this was a clearly marked case of small-pox.

The history of the previous variolous inoculation in 1770 was procured from the Dowager Lady Rowley by Mr. D n'as, Sergeant Surgeon to his Majesty; and the account of the present case was transmitted to the Director of Vaccination of this Establishment, on the application of the Board, by Mr. Guy, an eminent Surgeon of Chichester.

## II. *Case of Miss Sarah Booth, of the Covent Garden Theatre.*

Dr. Bree was called to visit Miss S. Booth, on Monday, June 25th. She was said to be ill with the small-pox, and the following circumstances were reported by the mother and sisters.

Miss Booth is 18 years of age, she had been inoculated for the small-pox at 5 years of age, and had been affected with the usual degree of fever; the arm had been violently inflamed, and an eruption of small-pox pustules had appeared round the inoculated part, from which matter had been taken by Mr. Kennedy, the Surgeon, who attended her. Mr. Kennedy expressed himself satisfied that Miss S. Booth had passed regularly through the disease.

The usual scar of small-pox inoculation is perfectly evident on the arm.

On Thursday, June 20th, Miss Booth was seized with fever, distinguished by vomiting, violent head-ache, pains in the back, and loins.

The symptoms continued till Saturday, June 22d, in the evening of which day some pustules came out on the forehead and scalp.

Sunday, June 23d, a more complete eruption appeared on the face and neck, and she was relieved from the violence of the fever. The vomiting however continued, the throat became very sore, and a salivation began.

Monday, June 24th. The eruption extended itself on the body, the fever was still more abated, but the salivation, soreness of the throat, and vomiting were urgent symptoms.



Tuesday, June 25th. The fourth day of the eruption, the salivation and retching continued, with soreness of the throat.

Wednesday, June 26th, fifth day of the eruption. Pustules were noticed on the lower extremities, those on the face advance, and the eyes are swelled, the number of the pustules on the head and face is about two dozen.

Thursday, June 27th, sixth day of the eruption. The pustules on the face began to turn. She still suffers from sore throat and salivation. This evening contrary to advice she went to her business at the Theatre.

Friday, June 28th, seventh day of the eruption. The pustules on the face are turned, those on the lower extremities are few in number, but well filled, and not yet changed.

Saturday, June 29th, eighth day of the eruption. She only complains of sickness. After this day the pustules turned and dried on the lower extremities, and no complaint remained.

This case appeared to have been a very mild case of distinct small-pox.

ROBERT BREE.

This case was visited by the greater number of Members of the Board, and also by the Director, and was attended by Mr. Hewson, of James Street, Covent Garden, who entertains no doubt of this having been a case of small-pox.

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### III. *Case of John Godwin.*

Mrs. Godwin, No. 6, Stratton Street, Piccadilly, states, that she was brought to bed of this son in October, 1800, that six weeks

after he was born, the small-pox prevailed very much in her neighbourhood, and one child died of it in the house in which she lived. About this time her son was attacked with very violent fever, succeeded by a copious eruption all over the face and body, which was declared by Mr. Smith, an Apothecary, who attended him, to be the small-pox, and which was ten or twelve days before it completely scabbed and dried off.

Some time after this, a brother of her husband, a medical man, who had not seen the child during its illness, inoculated him for the small-pox, in order to insure his complete security; a small pimple on the part was only formed, which soon disappeared, and no fever or eruption ensued. About six weeks ago, this boy, now eleven years old, was attacked with fever, followed with an eruption, which broke out on the face, body, and limbs, exhibiting the ordinary appearance of small-pox, and which turned on the eighth day.

Mr. Kerrison of New Burlington Street, who attended this boy, states, that the eruption exhibited the exact appearance, and passed through all the stages of distinct small-pox. He also from this boy inoculated a child who had fever at the usual time, followed by a slight variolous eruption.

The history of the former disease was procured from Mrs. Godwin, and the history of the second attack of small-pox from Mr. Kerrison, by Mr. Moore, Director of Vaccination at this Establishment.

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#### IV. *Case of Peter Sylvester, No. 10, Cross-street, Carnaby-Market.*

This boy's parents are both dead. He was born on June 7th, 1798, and on the 21st Feb. following, was inoculated for the small-pox by Mr. Ring, of New-street, surgeon. Mr. Ring shewed the

Director of Vaccination at this Establishment his account-book of that period, in which there is a charge regularly entered for inoculating this boy for the small-pox.

The cicatrix on his arm is still conspicuous, and six or seven small-pox pitts, occasioned by the former eruption, have marked his face.

On the 24th June last, this boy was taken ill with fever; on the 27th an eruption on the skin took place. Mr. Moore, the Director, saw him on the 30th; the spots on the skin were very numerous, but distinct, and the skin round their bases was inflamed; many had formed within the mouth and throat.

July 1st, the eruption has now assumed the appearance of genuine small-pox, the pustules are augmenting, and the face is beginning to swell. 2d, The pustules are larger, and the face much swelled. 3d, The pustules on the face are at the height, and the eyes are nearly closed. 4th, The pustules on the face have all began to turn; all fever is gone.

This case is drawn up from the notes of Mr. Moore. The case was visited by several Members of the Board, and by many other medical gentlemen of the highest respectability.

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From the period at which the violent opposition to small-pox inoculation subsided, till the establishment of vaccination, no reasonable parent has refused to allow his children the benefit of inoculation, although it has been generally acknowledged that the inoculation of the small-pox sometimes produces a fatal disease; and if at that time the instances in which the natural small-pox had occurred after inoculation, had been communicated to the public, every intelligent man would undoubtedly have still continued the same course, from a desire of affording his children the best chance of safety, although his confidence in the absolute



security from natural small-pox must have been in some degree abated.

In the same manner, no effect injurious to vaccination ought to result from the knowledge of the above failures. Parents always had been apprized that there were occasional failures of vaccination, but they were always aware that none of their children would die of vaccine inoculation; and that when it failed, the succeeding small-pox was almost always much mitigated and disarmed of half its terrors. It was natural therefore that they should choose vaccination as the less dangerous disorder, and the same reason still exists for their perseverance in that choice. If there be constitutions which are twice susceptible of small-pox, a disorder which produces a violent action upon the human frame, and often destroys life, it is natural to expect that vaccination should not in every instance prevent the small-pox, and that the anomaly which occurs in the one disease should likewise take place in the other. It is ever to be kept in view, that the number of deaths from inoculated small-pox exceeds the number of failures of vaccination. It appears from the present state of our information, that one person in three hundred dies from the inoculated small-pox, and that there is, perhaps, one failure in a thousand after vaccination. An individual who under such circumstances should prefer the inoculation of his children for the small-pox, to submitting them to vaccination, would be guilty of an improvidence similar to that of a parent who should choose for his son a military service, in which there was one chance in three hundred of being killed, in preference to a station where there was only one chance in a thousand of being slightly wounded.

The Board are of opinion, that vaccination still rests upon the basis on which it was placed, by the Reports of the several Colleges of Physicians and Surgeons of the united kingdom, which were laid before Parliament in the year 1807. That the general advantages of vaccination are not discredited by the instances of failure which have recently occurred, the proportion of failures still re-

maining less in number than the deaths which take place from the inoculated small-pox. They are led by their information to believe, that since this practice has been fully established, no death has in any instance occurred from small-pox after vaccination—That in most of the cases in which vaccination has failed, the small-pox has been a disease remarkably mild, and of unusually short duration; and they are further of opinion, that the severity of the symptoms with which Mr. Grosvenor was affected forms an exception to a general rule.

That absolute security from the natural small-pox is not even to be obtained by small-pox inoculation is sufficiently evident from the annexed cases; and the Board are enabled to state, that they have been made acquainted with instances of individuals who have twice undergone the natural small-pox.

Under all these circumstances, the Board feel justified in still recommending and promoting vaccination, and in declaring their unabated confidence in this practice.—Since in some peculiar frames of constitution the repetition of small-pox is neither prevented by inoculation nor casual infection, the Board are of opinion that in such peculiar constitutions the occurrence of small-pox after vaccination may be reasonably expected, and perhaps in a greater proportion, but with this admission, they do not hesitate to maintain, that the proportionate advantages of vaccination to individuals and the public are infinitely greater than those of small-pox inoculation.

They are anxious that the existence of certain peculiarities of the human frame, by which some individuals are rendered by nature more or less susceptible of eruptive fevers, and of the recurrence of such disorders should be publicly known; for they feel confident that a due consideration of these circumstances, and a just feeling of the welfare of the community, will induce the public to prefer a mild disease like vaccination, which where it fails of superseding the small-pox, yet mitigates its violence, and prevents its

fatal consequences, to one whose effects are frequently violent, to one which often occasions deformity and blindness, and when it is contracted by casual infection, has been supposed to destroy one in six in all that it attacks. And it must not be forgotten, that in a public view this constitutes the great objection to inoculation of the small-pox, that by its contagion it disseminates death throughout the empire, whilst vaccination, whatever be the comparative security which it affords to individuals, occasions no subsequent disorder, and has never, by its most violent opposers, been charged with producing an epidemical sickness.

By Order of the Board.

July 18, 1811.

JAS. HERVEY, Register.

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The physicians and surgeons who directed this Report, being men of long-established reputation, could have no other sentiment to actuate them than the general good of society; it is accordingly a candid and temperate relation of facts, not denying that small-pox has supervened vaccination; proving also that individuals have had small-pox more than once: the security derived from small-pox being fallible, as well as that arising from cow-pock: but the failures are rare, and when compared with the successful cases, are really insignificant; whilst small-pox, even by inoculation, being both dangerous and infectious; the cow-pock neither, but mild and safe; they of course strongly recommend the practice of vaccination.

After patient and full investigation, the practice of vaccination is strongly recommended by all the Colleges of Medicine and Surgery in these kingdoms, and on the continent. In the Report of the London College of Physicians just given, it is stated, " that



the security derived from vaccination, if not absolutely perfect, is as nearly so perhaps as can be expected from any human discovery."

The hope of rendering this security more perfect by detecting such cases as are most likely to be fallible, is the great inducement which has led to the publication of these sheets.

Infants, in general the subjects of vaccination, are so often affected with slight fever from teething, disorders of the primæ viæ, &c. that the slight and transitory increased action produced by vaccination is very likely to escape detection, even if it does take place; but it is well known that both in variolous and in vaccine inoculation the peculiar inflammation may be confined to the part where the virus is inserted, and have no general effect upon the constitution; after such local action, no future security can be expected: therefore to ascertain clearly the existence of constitutional action becomes a grand desideratum in practice, and may always be easily effected by means of a second inoculation *ab ipso*.

The practitioner conversant with vaccination will have remarked, that when one of two or more punctures has failed, and the inoculation is repeated; that in five or six days after such repetition the areola of the differently aged vesicles, though distant from each other, will be synchronous in appearance; which it is inferred could not be the case if the constitution throughout were not influenced by the first inoculation; especially as the areola where the vaccination has been single is not visible before the ninth day.

In strongly urging the utility of thus testing the vaccine process, I have no intention of attempting to decorate myself in borrowed robes, *palman qui meruit ferat*; it was first, I be-

lieve, mentioned to the public by Mr. Bryce, of Edinburgh. I wish only to give currency to that which might be stagnant, to render that of universal which before was only of partial use, or of confined application. I claim no other merit than that of more firmly placing useful suggestion on the solid ground of extensive experience and numerous facts.

What I wish to recommend, therefore, is merely this: Virus having been inserted into one arm, and having taken effect, a small vesicle will be seen on the fifth or sixth day, from which lymph is then to be taken and inserted into the other arm; if the first vesicle should happen to be only local in effect, the second will proceed slowly, and be surrounded with an areola about the ninth day; but if the first acts on the constitution, the second will be so accelerated in progress as to overtake the former, and will be surrounded by an areola in three or four days; that is to say, both will have this distinguishing mark on the ninth day, counting from the first inoculation; but the secondary vesicle and areola will be only a third or half the size of the primary. A test so simple in itself, and yet as a means of diagnosis so important, cannot be otherwise than particularly deserving of the notice and adoption of the vaccine practitioner.

This two-fold inoculation has often been used as a test by my brother, Surgeon to the Honourable East-India Company, who is very sanguine in his expectations of the advantages likely to ensue from the general adoption of it, as may be gathered from the following letter lately addressed by him to me,

Finsbury-square, July 21, 1811.

DEAR BROTHER,

I am of opinion that the mode of inoculating cow-pock which you have practised for some time past, and which I have since adopted, is well calculated to increase the security of vaccination, and is productive of great satisfaction to the practitioner and patient.

I think there is great reason to conclude, that the cases of small-pox which have supervened vaccination have been in subjects who have merely undergone the *local effect*, and that this new mode which unequivocally demonstrates *during* the process, when the local only, and when the *constitutional effect*, in addition, does take place, was a desideratum devoutly to be wished for, and is well calculated, if generally adopted, to produce a new æra in vaccination; from whence I incline to believe no failure will take place but such as may be foretold by the practitioner of observation; and, of course, will enable the parties *immediately* to adopt additional means of security, either by a re-vaccination, or (which I hope would be seldom) inoculation with small-pox.

Valuing highly, as I do, the important discovery of the preventive power of cow-pock against one of the most formidable and fatal of human diseases, and thankful to Providence and Jenner for the benefits derived in my own family, and that I have been enabled to dispense to others in my professional duties.



I am very anxious that you should publish your opinion and experience on this method of vaccinating and testing.

Your's affectionately,

L. LEESE.

To Mr. Edward Leese,  
National Vaccinator.

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It is a remarkable fact, that where small-pox and cow-pox are at one time present in the same subject, as I have seen in several instances, yet the matter taken from the vaccine vesicle hath produced perfect cow-pox; and that taken from a variolous pustule of the same person hath produced perfect small-pox; the matter of the two, preserving and producing by inoculation their distinctive characteristics. A strong case of this kind is related by Dr. Woodville in his History of Vaccination: "Matter taken from a variolous pustule that appeared within the margin of the vaccine tumour having produced small-pox, whilst matter taken from the centre of the tumour produced cow-pox." If by accident in either case the lancet reach the blood, an inert fluid is obtained; it has been proved that the blood is not infectious in any stage of the most violent small-pox. (Vide Darwin's Zoonomia, vol. ii. p. 85.) Experiments also in cases of syphilis, scrophula, and other diseases, exhibit similar results. What sober pathologist may rationally therefore predict, that virus taken from a variolous pustule, or lymph from a vaccine vesicle, will produce any other disease than that of which the respective pustule or vesicle is characteristic!

Although no other specific malady can result from vaccination, yet it will be admitted that a habit or constitution already exhausted or broken down, becomes more likely to put on diseased action. If this be true, there remains no question of the

infinite superiority of the vaccine over small-pox; for the latter is most generally a violent disease, leaving the habit and constitution in a very shattered and emaciated state, to recover which often requires a great lapse of time; but vaccination makes no destructive inroad on the constitution; it leaves it as it found it, neither weakened or exhausted.

It may be asked when the variolous pustules have been very numerous, what becomes of the matter they contained? Some of it must be absorbed into the constitution. Will two or three or a dozen purgatives carry it all off? In the cow-pock, no matter is produced, except at the part inoculated; no subsequent treatment by purgatives is indicated or necessary, as is acknowledged to be requisite after small-pox.

Vaccination, unlike small pox in this respect, is attended with only a slight inflammation at the inoculated part, and about the ninth day a symptomatic fever, in degree so slight as scarcely to be at any period perceptible; yet when it is observed, it manifestly pervades the whole system, or at least the cuticular surface, with febrile action; as is demonstrated by the subsequent, rapidly overtaking the prior puncture.

The children of my own family have when one month old all undergone vaccination with the test of a second puncture; the eldest in October, 1806, the youngest very lately; the second inoculation was six days after the former, the first arrived at its zenith at the usual period; the second overtook it by running through the ordinary process in three days, and each exhibited its areola on the ninth from that of the first insertion of the lymph.

The old doctrine of gross and foul humours, and the supposition that they depended on richness of the blood, is nearly

exploded; it is now better known that eruptions incident to infancy are much oftener the consequence or accompaniment of teething, of weakness, or of relaxation; and therefore to remove them, a tonic and invigorating plan of cure has superseded the former mercurial and purgative mode of treatment.

Many millions have been vaccinated within these last twelve years, probably ten times as many as have been variolated in the same period; but infantine eruptive complaints are not the more numerous; sore heads and scabby faces were as often to be seen twenty years back as they are now, and the same causes that produced them then (it could not have been cow-pock) continued to produce them now. This is not a matter of hypothesis, or metaphysical argument; it requires no technical knowledge to prove or disprove; it is a plain fact, within the observation of every one whose recollection can extend back so short a period, and must be acknowledged by all whose intellectual faculties are unclouded by prejudice.

If cow-pock had produced but a thousandth part of the mischief, or the diseases which have unfairly been attributed to it, they could not all have escaped my notice; I have from my official situations since 1803, vaccinated several thousands; and I can most decidedly and conscientiously affirm, that no malady or mischief whatever has been produced by it: and were it needful, I could shew from amongst those inoculated by me, that not one has had any complaint whatever that could with the least probability of truth, be attributed to vaccination; or that has not occurred repeatedly before this beneficial practice was known, and in those who have not been vaccinated. I would ask, if an equal number of those who have undergone small-pox were produced, would they be found more healthy, or more free from disfigurement, pitted, scars, sores or humours? Or will the advocates for small-pox pretend, that it protects from other



diseases of every description? No : it is well known, that such as have undergone that severe and dangerous distemper too often afterwards exhibit scald heads, sores, scars, and scrophula, in all its various shapes and modifications.

There are in this and every town, families where some of the children have been vaccinated, others variolated; yet are affected with similar eruptions: and it is sometimes not a little curious to observe how prejudice operates in opposition to reason in accounting for such occurrences. Within these few days I visited the family of Mr. A. in Dorset-street, where one child had been vaccinated, and two others had the small-pox; each of the three exhibited eruptions behind the ears, and in different parts about the body. Those visible on the first-mentioned child, the mother strongly affirmed arose from the "nasty cow-pox." I asked what then occasioned them in the other two, and was answered "they always had them when troubled with the nasty worms," it was in vain that I requested her to compare the three, and observe that the sores were alike in each: but where prejudice is so strong, reason is weak; time only and repeated examples can convince such persons.

The unfounded assumptions of the late Dr. Rowley, who attributed every thing that was dreadful and disgusting to vaccination, met with a severe rebuke from a Mr. S. in Paddington Street.

The doctor knowing that some of the children of this family had been vaccinated, and observing one of them affected with an eruption, abused as usual vaccination; reminded the parents of the possibility of ox-faces, &c. but after protesting it was cow-pox mange, and cow-pox the sole cause of it; had the mortification to hear from the father, that it was the other healthy children who had cow-pock, and this diseased one the

small-pox. It is well known to practitioners that such instances as the two last mentioned, occur not unfrequently, and though we may lament that our arguments are sometimes unavailing, yet it is some consolation to know that similar facts, if not speedily, must slowly and certainly, remove the veil of prejudice from the eyes of the community.

In a few instances where the matter used for inoculation had been taken from a vesicle *too far advanced*, where it had *acted locally*, or where it had been *interrupted in its progress*; a small-pox of a *peculiar and mitigated kind*, has been known to supervene; unlike any small-pox that had been seen previous to the practice of vaccination, and dissimilar to any now to be observed, *except in those who have undergone the vaccine process more or less perfectly*.

This mitigated small-pox I think may be distinguished when it first comes out by the shape and appearance of the pustules; but the peculiarities are particularly distinguishable by the fifth day, for then or on the following day, a sudden desiccation generally takes place, at which time also, if the symptoms have before assumed a serious and formidable appearance, such symptoms suddenly cease: the variolous pustules are more superficial, and never having acquired very completely the purulent form, they dry into firmer and more transparent crusts, neither secondary fever, so much to be dreaded, nor any farther illness taking place. When small-pox occurs a second time in the same person, (some instances of which will be enumerated hereafter) these peculiarities are not observable; in all the cases I have seen, the pustules have been as large, as purulent, and as long in duration, as any other small-pox. As I particularly observed in the case of Sylvester of Cross-street, mentioned in the Report of the National Vaccine Establishment, in Mr. Minikin of James-

street, Haymarket, and in another case I saw in Wimpole-street.

I have many times seen cow-pock an inmate with other diseases, from persons having been exposed to the contagion of scarlet-fever, hooping-cough, measles, chicken-pox, small-pox, &c. a few days previous to the vaccine inoculation; the effect produced on it by either of the diseases mentioned is very similar; by the appearance assumed by the vaccine vesicle I have frequently predicted the approach of some one of them before they have exactly manifested themselves: I have been led to do this by observing on the seventh or eighth day, that the cuticle covering the vesicle, assumed an opaque and darker colour, the edges flatter, but inclined to extend; in short, the whole having a more dead appearance than usual: when I have noticed these variations I have generally informed the persons about the patient, that some other disease would appear before the vaccine areola would take place; in the interim the vesicle enlarges, and perhaps attains twice its usual diameter. Some time since I inserted vaccine lymph into the arm of a Mr. Spindler's child in Arlington-street; the effect was as usual untill the seventh or eighth day; I then told the mother it would have some other disease, when for the first time she informed me that the day week previous to the inoculation, it had been for some time in a room where there was a child with small-pox full out upon it, which circumstance had been the occasion of her coming to me, (she did not even at this time inform me that herself had never had small pox) the vaccine vesicle in the inoculated child, continued to encrease untill the *nineteenth day*, the small-pox then appeared, and on the following day, the vaccine areola; the variolous pustules were very numerous, but small in size.

In Balsover-street I had a case where the areola was sus-



pended untill the fourteenth day by measles. I have others connected with scarlet-fever, &c. recorded on my register of public gratuitous patients. That two diseases may exist simultaneously in the same subject is evident, yet the doctrine of Hunter is not disproved, for I believe they cannot proceed with equal steps; one will always be in advance of the other, and must pass its zenith before the other can arrive at it: neither does matter of one mingle with that of the other (vide page 53. This circumstance, the cow being unsusceptible of small-pox, &c. lead me to conclude that vaccina has no more affinity to variola than it has to varicella, scarlatina, rubeola, &c.

Having thus observed upon vaccination generally, having contrasted its mildness with the severity of small-pox, and having also detailed the practice to be relied on as a test of its efficacy; I shall proceed to give some cases of the occurrence of small-pox more than once in the same person, numerous others are recorded by Woodville, Ring, Willan, &c. I am induced to this, as some medical men as well as others not of the profession, may yet be found who entertain doubts as to the verity of such instances; of these that follow some are after inoculation, others after the casual infection, but most of them strongly characterized and witnessed by practitioners of the soundest judgment and most unimpeachable veracity; that the usual arguments of the sceptical, that such cases have been mistaken, will not apply: they cannot all have been errors for want of discrimination. It has also untill lately been an accredited opinion, that when the small-pox inoculation took effect in the arm it was a sufficient security, although not accompanied by any other eruption; confidence in this opinion has now vanished, many such persons having afterwards had perfect and complete small-pox. In some of these instances the first has been only a local affection, confined to the inoculated part, but if matter so active and virulent as that of small-pox, will some-

times act partially, is it at all remarkable that the milder lymph of cow-pox, should also only act partially? by the repetition of the inoculation on the fifth or sixth day, these unlucky occurrences as I have above shewn, may be prevented or at least detected.

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*Cases of Small-Pox occurring more than once in the same Person.*

A child of Dr. Stewart of Plymouth, was inoculated for small-pox very young, and had about two hundred pustules; at the expiration of two years was again inoculated, from which it suffered much more than the first time, and had a considerable number of pustules.

A child of Mr. Chitty, East Street, Red Lion Square, had small-pox by inoculation, but was not secured from the recurrence of that disease.

An infant of the Earl of Westmeath was inoculated in the Suttonian method by an eminent physician in Ireland, and pronounced to be secure from future infection; but in 1806 caught small-pox; its sister who had been vaccinated by Dr. Jenner resisted it.

Mr. Fewster of Thornbury, a very eminent inoculator in partnership with the celebrated Sutton, had small-pox when young: he practised inoculation for it very extensively for forty years, but accidentally wounding his finger with an infected lancet, had it again, with a considerable number of pustules.

Mr. Scott another Surgeon of the town just mentioned, had small-pox of the confluent kind by inoculation; caught it again twenty years after, and had it severely.

Dr. Lettsome, in his evidence before the House of Commons, mentions two relations of his who had been inoculated in the Suttonian method: both of whom some time after had small-pox in the natural way, of which second disease one died.

A boy at a farm house at Arlington was inoculated and covered with small-pox eruptions, but small-pox being in the family a year afterwards, he caught it again, and had a heavy burthen.

In the fourth volume of the Memoirs of the Medical Society of London, is a most conspicuous case of Richard Longford, a farmer of West Shefford, Berkshire, related by Mr. Withers a surgeon of Newbury who attended him with Drs. Collet, and Holbert, at the time of his death from a second small-pox. The first time he had the disease in a most inveterate degree, as indicated by his face remaining pitted and scarred in a severe manner; from his supposed certain unsusceptibility it had been usual with him, to attend on the poor of the parish whenever the small-pox happened amongst them.

About a year before Dr. Jenner published his work on cow-pock, Mr. Bliss of Hampstead inoculated a Miss Lutwidge, who had numerous pustules; some years after she caught small-pox a second time, and whilst these were out upon her was seen by several medical men, among others by the late Dr. Rowley who published it as a case of small-pox after cow-pock.

Miss Weller, No. 6, Panton Street, had small-pox by inoculation at the same time her brother had it casually; some years



after she caught the disease, was attended by Mr. Anderson of Fleet Street, and was seen at the time by many medical men.

Mrs. Turton of Long Parish, Andover, had small-pox twice, and was blind each time with it; as related to Mr. Ring, by her nephew in Swallow Street.

Mrs. Jones, No. 2, James Street, Manchester Square, had small-pox by inoculation and was assured to be safe, by Mr. Stredwick of Richmond, she afterwards caught it, had it severely and was blind two days.

Mr. Scammel of Plymouth published the particulars of the of the case of R. Bartlett a carpenter, who caught second small-pox by attending as an undertaker to a child who died of that disease; Bartlett had before been inoculated, had a severely inflamed arm, and many eruptions.

Some years since two sisters of my own were sent to a house where nine children of different families were assembled for the purpose of being inoculated for small-pox, which was done by Mr. Weeks of Hollingbourn in Kent, then a very celebrated inoculator; in five of the number eruptions of small-pox appeared as usual, but in four there were none, yet Mr. W. assured the friends that from the inflammation, &c. of their arms they were quite as safe as any of the others, and offered to be bound in £1000. bond, to be forfeited if ever they had any more small-pox; the arms healed, the children resumed their usual diet, &c. to prove their safety they were made to smell to a box which he took from his pocket containing variolous matter on cotton; ten days after they all four sickened and had variolous eruptions. Whether they were infected by the pandoric box, or received it from the other children may perhaps be doubted, but that the variolous matter in the arms had acted

locally is most probable, and the inference to be drawn even from small-pox is in favour of inoculating *cum periclitationé*.

Mr. Bliss of Hampstead inoculated a girl for small-pox, who had many pustles, afterwards nursed children with the disease without taking it; but in 1798, had a full crop of natural small-pox.

A daughter of Mr. Twyford of Wilsden Green, had been inoculated by Mr. Collins from a man who had the casual infection, and had that disease; she had another attack of small-pox some time after.

About three years since I saw in Wimpole Street with Mr. Ring, the servant of the secretary to the Philanthropic Society, covered with small-pox eruptions, and attended by Mr. Hobson; he had gone through the disease in his infancy.

Mrs. Dowling living in 1805 at No. 44, Warwick Street, informed me she had small-pox when eleven years old by inoculation, of which a large scar now remains; from hers several were inoculated and had the disease; when about twenty two, she caught it again from her own child who died of it; she was ill, confined to her bed with a numerous crop of pustles, which kept out a eleven 'or twelve days, and have left pits.

Mr. Vaughan, Sen. No. 4, Pratt Street, Lambeth, had small-pox with his brother, when three years old; about ten years after he caught it again, and as he informed me, had it severely.

Mrs. Pidgeon then residing at No. 53, East Street, related to me the following circumstances respecting her husband who died of a second small-pox; he had been inoculated when in the service

of Captain Markwell of Honiton, by a Mr. Butler, had numerous pustules, and was so ill, that Dr. Robinson was requested to attend also; fourteen years after he caught the same disease from one of his own children, had a full eruption and died on the eleventh day.

Thursday, Nov. 21, 1811, I saw Mr. Minikin at No. 6, James Street, Haymarket, about 25 years of age; when an infant he had been laid in a cradle in which another infant had slept who had small-pox, Minikin soon after had that disease, and from him two children were inoculated and had it also! Last Saturday week Mr. Minikin was very ill with fever and "pains in his bones," which were attributed to cold, he remained much the same until Monday when an eruption began to appear which proved to be small-pox, and he had when I saw him a large crop of pustules to the amount of many hundreds, large and purulent; a brother's child in the same house was inoculated from one of them,—he was attended by Mr. Deering of Aldersgate-street, and has been visited by other medical men.

In the report of the National Vaccine Establishment some other cases are detailed, as well as in a paper written and circulated by Mr. Lane, a respectable Surgeon of Arundel, who deserves much credit for his endeavour to enlighten the minds, and save the lives of the people in that vicinity.

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*Copy of Mr. Lane's Address to the Inhabitants of Arundel, dated  
May 17, 1810.*

A most false and malicious report having gone forth, that I had given up the intention of ever again inoculating for the cow-pox;



I feel it a duty incumbent on me, and which I owe to my fellow-creatures, to contradict the report in the most public manner; particularly at this time, when the town is in the greatest danger of being infected by that most horrid and loathsome of all diseases, the small-pox; one of its inhabitants, devoid of all thought or feeling, having had his children inoculated with that dreadful malady, and suffered them to return to his house without taking the necessary precautions to prevent the spreading of the infection.

Several children in the town have been already attacked by this shocking disease, and it is impossible to calculate to what extent it may rage, and how dreadful it may be in its consequences at this time of the year; unless the greatest attention be paid by those on whom the care of the poor devolves, to prevent it.

That I may, as far as the compass of my abilities, contribute my mite to the attempt of convincing those who yet do not feel satisfied of the efficacy of cow-pox to prevent the infection of small-pox, I beg to offer the result of ten years' successful inoculation for cow-pox, during which period I have inoculated in Arundel, and in the adjoining villages, upwards of *four thousand persons*; and I do most solemnly declare, that I have not seen one instance of the small-pox being taken after cow-pox inoculation, although great numbers of those whom I have inoculated with that disease, have been in every way exposed to the infection of small-pox! That in the immense number of persons who have been inoculated with cow-pox, there have been some who have taken the small-pox after it, I do not attempt to deny; but from the report of the Committee appointed by the House of Commons to examine into the state and efficacy of the cow-pox inoculation, it appeared, that of twenty thousand persons who had been inoculated with it, only one in eight hundred had taken the small-pox, and that not one of them had died, but had the disease in its mildest form.

Out of this extremely small proportion of cases, must be deducted several which on a strict investigation were proved by the

Committee to be falsely stated, and others which had arisen from the persons allowing themselves to be inoculated by those ignorant of the disease, or careless in watching it through its regular stages. That neither the natural, or inoculated small-pox, can guard every one from being again infected by that malignant disease, an immense number of cases may be brought forward to shew, but I will restrict myself to four, three of which occurred under my own immediate inspection, and one was related to me by Mr. Byass, whose assiduity and humane exertions to extend that benign disease, the cow-pox, cannot be too highly extolled.

The first case was that of a young woman of the name of Mary Hammond, in Yapton workhouse; who had some years before, been inoculated for the small-pox, by a person of the name of Clements, of Patching, a well-known inoculator in this neighbourhood: she said that she had the small-pox on her at the time; and from the appearance of both arms there was no reason to doubt her having taken the disease. Early in the year 1799, I inoculated the paupers in Yapton workhouse: Hammond was at that time in daily expectation of being brought-to-bed; she caught the small-pox, and was in great danger of losing her life from it.

The second was Thomas Artwell, born in this town, and still residing here, who was inoculated, when three years old, by Mr. Wickham, then practising in the town as a medical man; the arm did not rise, but in a fortnight after he was seized with the small-pox in the natural way, and had it in a most alarming degree. In the year 1800, Artwell, being then in the Sussex Militia and quartered at Lewes, again caught the small-pox, and returned to this town, when Mr. Byass and myself were called in to see him, and the disease full out upon him: he was afterwards attended by Mr. Hills.

The third was that of Michael Birt, who when a child caught the small-pox, and was absolutely supposed to be dead! The windows were thrown open, and the free admission of cold air

restored him, and he lived to be nearly seventy years of age. This case was frequently related to me by Mr. Birch\*, who attended him at the time, and to whom I had the honour of being apprenticed. Birt was frequently employed to wait on those patients who had the natural small-pox in its most noxious and malignant form: in the year 1799, he assisted in carrying a woman to the grave; who had died of that disease: he caught the infection, again had the small-pox in a most shocking manner, and died: in this attack I attended him.

The fourth, and the one which Mr. Byass was so kind as to relate to me, was of a Mr. Drewett, of Seldon, who had, with many others, been inoculated by Mr. Chamberlyn, a very famous small-pox inoculator of the day, and he had every reason to suppose himself perfectly safe from the small-pox infection. When Mr. Byass inoculated the parish of Angmering some years ago, for the small-pox, the servants in Mr. Drewett's house were also inoculated; Mr. Drewett caught the disease, and had it very severely.

The limits, from the method I have adopted of conveying my sentiments on this important subject, being very confined, prevent my inserting more proofs in favour of cow-pox inoculation, or I could adduce a thousand from the highest and most respectable authority; but the sanction given to it by every Member of the College of Physicians, and by professional men of the greatest knowledge and respectability, ought to be sufficient evidence to convince the most unbelieving of its efficacy in resisting small-pox infection. Notwithstanding the immense mass of evidence pouring in from all quarters, of the efficacy of the cow-pox, and the veneration in which Dr. Jenner, the great discoverer of this blessing, is held in every part of the habitable world, it is with the greatest concern I still see attempts made, by wicked and interested persons, to influence the public mind against the introduction of this

\* The late Mr. Birch, Surgeon, of Arundel.



benign disease; but I look forward with the consolatory hope, that truth will at last be triumphant; and the day will come, when that curse of human nature, the small-pox, will be totally eradicated from this island.

Happy shall I esteem myself, and greatly indeed shall I deem myself rewarded, if these hasty observations I now, from the most thorough conviction, offer to my fellow-townsmen, should have sufficient weight to induce them to give their support and encouragement to the propagation of the cow-pox, and to prevail on those over whom they may have any influence, to give up the destructive practice of inoculating for that most horrid and pestilential disease, the small-pox.

C. LANE, Surgeon.

*Arundel, May 17, 1810.*

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The list of cases similar to the foregoing is daily augmenting; the fact is now generally admitted to be true on a large scale: on a scale, until now, neither believed nor imagined, but within these last ten or twelve years the attention of medical men has been particularly directed to cutaneous diseases; Dr. Willan's publication has thrown much light on the subject; and the introduction of vaccination has also strongly tended to elicit and establish the existence of numerous cases, where small-pox has recurred more than once in the same person.

The most important objection to small-pox inoculation is the contagion it disseminates to the destruction of those who have not adopted a security against the invasion of so formidable an enemy; parents overlook the danger they are bringing upon

their children; they do not consider that a large proportion of those so inoculated perish; from the most authentic calculations, one in two hundred dies: Mr. Ring whose general accuracy is well known, says in his *Treatise on Vaccination*, that in London one in every hundred is lost: Mr. Shoolbred states that in India, one in sixty or seventy falls a victim to this ill-judged practice. Not to enumerate the disfigurement variolous inoculation frequently produces, there is another class of sufferers in many respects more to be commiserated, than even those whose sufferings are terminated by a speedy death; I mean those whom it deprives of sight; such instances are not unfrequent. One fourth of the inmates of the Asylum for indigent blind, were deprived of this most precious of all our senses, by small-pox. Some cases of death produced by small-pox inoculation follow.

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### FATAL INOCULATIONS.

Mrs. J. No. 10, Paradise-street, had two of her children vaccinated who did perfectly well; a third she inoculated herself for the small-pox, it died on the ninth day, and left her to lament that she had not had it secured as the former two, who remained perfectly well.

A farmer, at Wotton-under-Edge had two children inoculated at one time; one of them died in consequence.

Mr. P. a Surgeon of Bristol, lost a child by mortification taking place in the inoculated arm,

The Earl of Roslyn also lost an infant by inoculation; it was attended by Dr. Moseley and Mr. Dundas.

A servant to Sir Joseph Banks had a child inoculated for this fatal disease, of which it died; just before its death a highly respectable Surgeon in Vere-street, was requested by Sir Joseph to visit it, but was too late to be of service.

Before vaccination was so generally practised as now, a celebrated Accoucheur in the city variolated his own child, by which it was destroyed,

About the same time as the above, a Surgeon of Guy's Hospital lost a grandson by small-pox inoculation.

An Apothecary near Smithfield lost a grand child also in a similar manner.

Within a few days of the beforementioned circumstance, the same gentleman lost a patient he had inoculated in Charterhouse Square.

Mr. Purkis, oilman, Cow Cross, near Smithfield, inoculated his own child with Small-pox in Dec. 1811, of which inoculation it died.

Mrs. Roy, residing near Russel-Square, but now acting as nurse at 29, Alsop's Buildings, New Road, had a child inoculated in Great Mary-le-bone Street, for small-pox about two years since, of which it died on the day the eruption began to appear.

Mrs. Burroughs, No. 2, Eden Street, Hampstead Road, when living as wet nurse with Lady Augusta L. had her child variolated and thereby destroyed, though every care was taken of it by an able practitioner.

At No. 10, Portpool Lane, a child of Mr. Haynes inocu-



lated by a practitioner in Gray's-Inn-Lane, died in February last : this inoculation spread the infection in that neighbourhood and was soon followed by many deaths by the casual disease.

Mrs. Booth, No. 5, Lisson Place, has been particularly unfortunate with respect to small-pox inoculation, having at different times taken two of her children to the Small-Pox Hospital, where they were inoculated for small-pox of which they both died. I have since vaccinated an infant for Mrs. B.

In Thayer-street a Mons. G. some time since lost an infant by this censurable practice.

Mr. Hopkins, Upper Thames-street, lost an only child by this destructive inoculation; one Surgeon who was applied to, declined to inoculate it with such a dangerous disease

Mr. Thompson of Acton, had a child inoculated by Mr. Sault; which died.

A Mr. Foster, in this neighbourhood has to lament a fatal inoculation in his family.

Mr. Mulford, late of the New Castle, Public House, in Broad-street, Carnaby Market, had the misfortune to lose a child by this fatal practice.

Mr. Fox, 78, Charlotte-street, Portland Place, had a child destroyed by this inoculation, last year.

Mrs. Lock, residing in a cottage near Lloyd's, Mason's Yard, Edgeware-Road, has to regret the fatality of an operation, so dangerous and unnecessary. She has since had other children vaccinated with the usual mildness and efficacy.

Mrs. Last, No. 3, South-street, Manchester Square, was thus plunged into affliction and remorse; her first three children were vaccinated in all respects satisfactorily; the Father wished this to have been the same, but some female acquaintance persuaded the mother against it, and it was taken unknown to the father, to an Apothecaries shop near, and inoculated for small-pox; on the ninth day after it was a corpse, the variolous pustules then just beginning to appear.

In 1807, seven children in Marsh-street, Walthamstowe, died of small-pox inoculation within a few weeks of each other.

The child of a servant, No. 15, Little Chesterfield-street, a few months since died of this dreadful inoculation.

Of the preceding fatal inoculations eight were performed by one apothecary, a resident in this parish; many must have fallen victims unknown to me, and numerous others must have been cut off by the infection, thus, constantly kept alive in the neighbourhood,

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The ten following cases of fatal inoculation are copied from a paper by two respectable surgeons of Wareham, published in the Medical Journal:—

“ About the beginning of June 1808, a general inoculation of small-pox took place in consequence of its appearance naturally in several parts of the town; of 283 inoculated, upwards of 30 had it in a dangerous form, of which number 10 died; of these 8 were under two years of age. We are of opinion this unusual fatality was occasioned by the heat of the weather, from the children being kept too warm, and having toast, ale, spirits, &c. given to

them. Of 81 previously inoculated for cow-pox, 46 were inoculated, many twice, and some three times, for small-pox; of this number 10 had fever and eruptions; we have the particulars of all these cases. In one case there was one eruption, in another two, in most of them less than twenty, and in two cases there were upwards of 100 eruptions, preceded by severe fever; in all these cases the eruptions did not mature, or matured prematurely, and all were dry and gone in a week. Of 35 who were not inoculated for the small-pox, but who were exposed to it, in the severest manner, by living and sleeping together, even when there were deaths in the house, from small-pox, not one has taken it; since all these resisted the casual disease, the probable conclusion is, that there would have been no cow-pock failures; if none had been subjected to variolous inoculation: even the failures prove the efficacy of cow-pox, rendering the subsequent small-pox devoid of danger."

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Language too strong cannot be used in contrasting the virulence and danger of small-pox, either casual or inoculated; with the mildness, yet efficacy, of perfect vaccination. It is of infinite importance to impress on the public mind, that after small-pox has been received in either way, and the suffering patient has escaped all the chances of disfigurement and death, which from that disease he is liable to; he is not more safe from future attacks of it than if he had gone through only the mild and safe process of vaccination.

Parents, whose duty it is to watch over and preserve the health of their offspring, should attend to reason and humanity, and reflect that by inoculation for the small pox, they bring upon their children much pain and suffering, and hazard their



lives without necessity; and that they are moreover spreading infection amongst their neighbours. On the other hand they might reflect, that the vaccine inoculation is mild in its progress, neither fatal, dangerous, nor infectious. Cow-pock being uninfecious is one of the advantages that has not, I think, been sufficiently dwelt upon by those who have publicly treated on the subject. It is an argument strongly urged in Mr. Massey's Sermon against small-pox inoculation, that it is a means of destroying thousands who otherwise would have escaped, as it keeps alive and spreads abroad infection. He uses the following words against variolous inoculation, "he hopes the time is coming that these Venefeci, these spreaders of infection, will be distinguished from those of the faculty who deserve honour, and not permitted to mingle with them." Dr. Willan relates an instance of destruction produced by these "Venefeci, these spreaders of infection," that is enough to deter any man of common humanity from such practice: "A child was inoculated, whose parents kept a shop in a court, consisting of about twenty houses; as the inhabitants repaired every day for necessary articles to the source of infection, the consequence was that seventeen persons were infected with the small-pox in the natural way within a fortnight after the child's recovery, and eight of them died of the disease." Many similar instances have occurred, and knowing this, what conscientious man can inoculate for small-pox, and thus destroy his fellow-creatures?

It behoves every member of society to conform to laws enacted for the preservation and furtherance of the general good. Thus a man who sets fire to his house is punished by the law, although the house and all its contents are his own property. Quarantine laws prevent the introduction and spreading of plague, leprosy, &c. on pain of death; yet these are but partial evils compared with small-pox. Firing a house can only endanger a few persons; the introduction of the plague may endanger a

few thousands, during the time it continues its virulence; but small-pox destroys each year, and every year, forty-five thousand people. This fact has been proved before the House of Commons by Dr. Blane and others. Endeavouring to restrain plague, and admitting the inoculation for small-pox, is verifying the adage, "strain at a gnat and swallow a camel."

Thanks to a merciful Providence, it is one hundred and forty-seven years since the plague appeared in this country. In the seventeenth century it made us three different visitations, and swept off, according to Russell's history of that disease, about 177,136 persons in London; but this mortality, dreadful as it sounds, is little when compared to that produced by small-pox; for if we take the last hundred years (which includes the improved Suttonian method of treatment) we shall find it has destroyed 200,000; but in the hundred years of the seventeenth century, when a different and opposite plan of treating the disease was in use, the mortality would, I should apprehend, be at least double that of the plague; and if we extend the comparison, the small-pox will be found still further to exceed the plague in fatality; for the latter, though appearing at Bristol and in other places, was mostly confined to the metropolis and its vicinity. But it is well known, that not a city, town, or village escapes the visitation of small-pox; and from the testimony before-mentioned it appears, that it has swept off in one century four millions five hundred thousand persons, subjects of the united kingdom. Other governments, however, have not been so remiss in the great duty of the preservation of the people. In some parts of America, particularly in New England and Virginia, a person is liable to a fine of 1000 dollars if he inoculate for small-pox without obtaining permission of the magistrates of the district: if a person be attacked accidentally, he is removed to a secluded situation, or if too ill for removal, the street where he resides is to be closed up with a

fence, and a red flag hoisted on his habitation. In some provinces of Turkey, notice of small-pox inoculation is given by the bellman. In some cities on the continent small-pox has been exterminated by humane and judicious restraints on individual liberty, and by the encouragement given to cow-pock. This observation may apply particularly to Vienna\*, Berlin, Milan, Naples, Copenhagen, the Hague, &c.

By a Royal Ordinance of the King of Bavaria it was decreed, that every child within his dominions under the age of three years, should be vaccinated before the first of July, 1808, and that every infant born in future should undergo this inoculation within three months after its birth; heavy penalties were enacted for the neglect of this decree; and inoculation for small-pox prohibited, on pain of imprisonment. Most Sovereign Princes in Europe, and many in Asia, have adopted vaccination in their own families. Vaccination is particularly sanctioned and promoted in France, and a much greater proportion of the population has been vaccinated in that country, than in this. Being invited thither by the Government, Dr. Woodville since the present war, was allowed to proceed to Paris to instruct the French Surgeons in the practice of vaccination, and that practice is now under the especial direction of ministers, mayors, &c, of the different departments,

In this kingdom it is much to be desired that the legislature would turn its attention to small-pox inoculation, and that it would adopt some means of restraining that practice. It is dreadful to relate, nay to think, that it daily makes such havoc in our population. By a most moderate calculation it has destroyed four millions five hundred and fifty thousand subjects during the present reign.

\* In the year 1801 only two persons died of small-pox in this city.



In 1807 was published "A Letter to the Right Hon. Spencer Perceval, on the Expediency and Propriety of regulating by parliamentary Authority the Practice of Small-Pox Inoculation, with a View to the Extermination of the Small-Pox." This little tract, replete with sound argument and legal authority, is attributed to the late Chief Justice of Ceylon. The author laments that France should increase her population by restraining variolous, and encouraging vaccine inoculation, by which the contagion of the former is avoided; whilst we, the discoverers of this mighty benefit to mankind, neglect to avail ourselves of its advantages: he uses powerful argument, and adduces precedent of legislative interference; he says, "it would, I apprehend, be no rigorous or arbitrary decree of the legislature that should wholly prohibit variolous inoculation; but longer to forbear to regulate and limit that practice would be a vicious acquiescence in individual caprice, to the public detriment."

Of the efficacy of vaccination as a prophylactic, and at the same time its safety even in the earliest infancy, I shall mention but one instance. In April, 1811, Mrs. P. No. 1, Park-lane, Baker-street, was delivered of a son. In the same bed laid a child, just taken ill with the casual small-pox, and from this another child was seized eight days after with the same disease, whom the mother supposed had gone through it before. I prevailed on her to allow me to vaccinate the infant, which was done accordingly when a few hours old. This process went on as usual, the babe had no illness, nor a single variolous pustule, although its suffering brother and sister continued in the same bed; it was thereby exposed to variolous infection, from first one and then the other, for more than a month, without the slightest effect. Such instances as the foregoing I have seen many times, but in the present state of the practice, and what has already been so amply proved on the subject, it is not necessary for me to go into detail.

Surgeons in general agree in making more punctures than one, some as many as three in each arm; some inoculate females on the outside of the leg; a single puncture in each arm is sufficient, but for the duplex inoculation it is preferable to puncture a distant part; in my public practice I generally therefore make two punctures in one arm first, and on the fifth or sixth day puncture the other arm in one or two more places with lymph taken from the former; if the second puncture were made nigh the first it might be supposed to be influenced by proximity, but when made at a distant part, the second can be accelerated in its progress only by the whole system being influenced by the first inoculation; for although virus taken from an early vesicle possesses more activity, and is more likely to take effect, than that from an older one, which is more aqueous, yet in a subject not previously inoculated it does not pass through its stages in less time, it is therefore a most certain proof of constitutional affection; and I am convinced that if this method shall be in general practice, we shall very rarely, if ever, hear that vaccination fails to produce its permanent prophylactic effects against the small-pox. This, with its numerous other advantages, must in no great length of time bring conviction of its utility to the mind of every rational being, and the extermination of that devouring monster the small-pox will be infallibly completed.

Upon the whole view of the question of vaccination I may further observe, that the volumes which have been written by the ablest and most cautious practitioners, the recommendations of all the Colleges of Medicine and Surgery, and the sanction of every government in the civilized world, are arguments so decided, and irrefragably in favour of the Jennerian practice, that it is unnecessary for me to waste time in entering into individual instances of its efficacy in preventing the ravages of the most terrific of human diseases.

My public situations have afforded me opportunity of viewing the subject of vaccination upon a very extensive field. And after unremitting attention to the question for twelve years; after numerous investigations of the unfavourable as well as favourable circumstances; and after calmly weighing and considering the facts and arguments adduced by others, either for or against vaccination; I feel most confidently the truth and justness of the following conclusions, and take leave to subjoin them, viz.

That many persons have had small-pox *more than once*.

That many die of *small-pox by inoculation* \*, and many more by the infection which it produces and disseminates.

That vaccination never destroys the person who experiences it, and that it is incapable of infecting others by way of contagion.

That small-pox, either casual or inoculated, when not fatal, frequently produces extreme danger, and always suffering to the patient.

That vaccination does not produce either danger or suffering.

\* When examined before the Honourable House of Commons in 1806, Sir Walter Farquhar and Dr. Bradley agreed in opinion, that of those inoculated for small-pox in England, one died in every 300: Dr. B. farther said that in the rest of Europe, in Asia, in Africa, and America, as many as one in every 150 was destroyed by it. Mr. Ring gave as his opinion, that in London, from the unwholeness of the atmosphere, and the necessity of inoculating under unfavourable circumstances, some who were particularly exposed to the contagion, always raging more or less in this city; it was fatal in as large a proportion as one in every hundred. At Warcham ten died out of 283 inoculated, an average of one in 28. (vide page 72.)



That small-pox frequently leaves behind it deformity, blindness, and other disfigurement, as well as disease.

That vaccination never produces disease, deformity, loss of sight, or disfigurement.

THAT THE DEATHS BY THE INOCULATED SMALL-POX ARE THREE IF NOT FOUR TIMES AS NUMEROUS AS THE FAILURES IN THE PREVENTIVE EFFICACY OF VACCINATION.

AND THAT A PERSON HAVING UNDERGONE THE SUFFERING AND DANGER OF SMALL-POX INOCULATION, IS NOT MORE SECURE FROM FUTURE ATTACKS OF THAT DISEASE, THAN IF HE HAD PASSED THROUGH THE SAFE AND MILD PROCESS OF VACCINATION.

FINIS.